

INSIDE DOPE

by GEORGE F. TAUBENECK
Story of the Week
Philosophy of the Week
Quotes of the Week
Out of Our Mailbag

Story of the Week

Around Utica, N. Y., they're talking about a widower who left a peculiar will.

It directed that his funeral service was to be held at 3:00 in the morning, and that all who attended were to share equally in his estate—although this was not to be announced in advance.

Seven hardy souls showed up, including his lawyer. Six characters, who were fond of being the last-to-leave patrons of the Hotel Utica bar, and whom the deceased had known there, became suddenly rich.

An appendage to this will read:

"I married a widow with a grown daughter. My father fell in love with my stepdaughter and married her, thus becoming my son-in-law, and my stepdaughter became my mother because she was my father's wife. My wife gave birth to a son, who was, of course, my father's brother-in-law and also my uncle, for he was the brother of my stepmother. My father's wife became the mother of a son who was, of course, my brother, and also my grandchild, for he was the son of my daughter. Accordingly, my wife was my grandmother because she was my mother's mother—I was my wife's husband and grandchild at the same time—and as the husband of a person's grandmother is his grandfather, I am my own grandfather. This is too tough to figure out when making bequests, hence I leave it to Fate."

Philosophy of the Week

"When more men begin to live for their respective countries, fewer will be called upon to die for them."—*SAC Highlights*.

Advice seldom is welcome. Those who need it most seem to like it least.

Quotes of the Week

"The most satisfactory parents are those who, despite the demands of training, guidance, worry, and love, first of all thoroughly enjoy their children."—*Better Homes & Gardens*.

"People today only look into the Bible when a dispute arises over a word in a crossword puzzle."—DR. PHILLIPS PACKER ELLIOTT.

Out of Our Mailbag

International General Electric
S. A., Inc.
Caracas, Venezuela

Editor:

As an ardent reader for several years of your excellent paper, AIR CONDITIONING & REFRIGERATION NEWS, I have seen that you are an enthusiastic collector of stories. Like most of your readers, I too enjoy a good story and recently I heard a couple that I would like to pass along. One is a baseball story and the other is a children's story.

The baseball story was told to me by Chico Carrasquel, Venezuela's gift to the Chicago White Sox. While I can't vouch for its authenticity, Chico is a modest sort of fellow and I am sure its exaggeration, if any, was held to a minimum. Anyway one day during his first year in the Big Leagues, when he was playing in Washington, Chico stood at the plate and watched a ball sail by about chin high.

"STR-I-K-E," shouted the umpire. Chico, hardly believing his ears, turned around in amazement, muttering, "you blind so-and-so."

The umpire stopped the game, strode around in front of him and, hands on hips, just stood and glared at Chico for several seemingly endless seconds. Finally, a broad grin lighting up his face, he stepped forward, held out his hand and said, "Chico, your English is coming along fine."

The children's story was told to me by Bill Forbis, Contributing (Concluded on Page 6, Column 1)

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The Real Political Issue Is Business Management

FORMER DEFENSE MOBILIZER Charles E. Wilson opines that Eisenhower's election will have little effect on the nation's march "down the road to socialism" . . . unless voters are educated better about the Free Enterprise system, and measures are taken to enlarge direct ownership of American businesses.

Mr. Wilson, who was President of the General Electric Co. not so long ago, suggests two generalized methods of accomplishing this desirable objective.

(1) Business firms should help their employees to buy stock in the businesses which employ them.

(2) Our Federal government should stop being a holding company for public utilities and other commercial undertakings. Moreover, government should sell the factories and utilities it now owns to private investors.

Revolutionary prospect and proposition? Sure. But good!

Personal savings now outstanding, in the form of United States government bonds, could pay for these plants and reduce the public debt at the same time. Now, there's a great idea!

Mr. Wilson—who rose from office boy to president of a huge corporation—reiterates that, during the last two decades, political administrations in Washington have helped establish a "powerful dictatorship of union executives."

Moreover, these cast-out politicians fostered class conflict amongst our nation's family of workers, managers, and investors—young people, old people, and the greatly neglected "independent consumers."

The former G-E top executive warns that wage, pension, and "fringe benefits"—however desirable temporarily—are being enforced without due regard for the ability of management and investors to continue paying the bill.

Such wangling, according to Mr. Wilson, must be financed

(Concluded on Page 8)

Fresh'n-Aire To Market 3 Year-Round Room Coolers In '53

CHICAGO—Fresh'n-Aire Co., a division of Cory Corp., has announced three newly-styled and engineered electric room air conditioners to be marketed in 1953.

The company said an outstanding feature of the new line is a single Fresh'n-Aire All-Season Weather Control Dial by which the units are made to perform much needed functions the year-round instead of serving only as conventional cooling units.

The line will consist of $\frac{1}{2}$, $\frac{3}{4}$, and 1-ton units priced at \$349.95, \$399.95, and \$499.95, respectively.

By changing the position of the dial, it was explained, the new Fresh'n-Aire air conditioning unit (Concluded on Page 4, Column 5)

Airtemp Names J. F. Knoff V.P., Gen. Sales Manager

DAYTON—J. F. Knoff has been named vice president and general sales manager of the Airtemp Div. of Chrysler Corp., C. E. Buchholzer, Airtemp president, announced recently.

Knoff has been with Chrysler Airtemp for nearly eight years and since 1951 has served as general sales manager of the Airtemp Div. The new washer is of the agitator type and will be priced competitively, Hamilton stated. Production is scheduled to begin in May.

Hamilton said many of the company's dealers and distributors "have been urging us to take this step." He added that the acceptance achieved by the Hamilton dryer "assures that a matching companion piece will be given a welcome reception. Now we can supply a complete automatic home laundry."

J. F. Knoff
(Concluded on Page 4, Column 4)

Model Code Has Registration, Not Licensing

RSES Code Meant as Guide For Chapters In Areas That Are Planning Legislation

MIAMI, Fla.—A model administration code which provides for registration but not licensing of contractors to supplement the ABA-B9 safety code was adopted by the Refrigeration Service Engineers Society during its 15th annual convention at the McAllister hotel here.

"This code is merely a model code and is intended as guidance for any local chapter that sees the need of introducing new legislation," members were informed by James H. White, chairman of the committee which drew up the code.

"Because it is not RSES policy to promote legislation, the biggest use of this model code," he said, "will be as a counter proposal when unfavorable legislation is pending or is being proposed. It should be emphasized that this model code can be adapted to meet local conditions.

"In drafting the model code, the important principle has been followed of giving the small refrigeration man an equal chance with the big companies, so let us use this model code wisely to the benefit of every RSES member and the benefit of the entire refrigeration industry," White urged.

Under the RSES code "no corporation, firm, or person shall engage in the business of installing, altering, and repairing mechanical refrigeration systems unless such corporation, firm, or person holds a valid certificate or registration."

To qualify for such a certificate of registration, the applicant must be 21 or over, "able to read and write the English language," and be "of good moral character."

The code further declares that "in considering the moral character of an applicant, the authority passing upon application may determine that an applicant with a record of repeated violations of the Building Code of the City of . . . or of other laws or ordinances regulating building construction in the City of . . . , or of dishonest practices or malpractice in the conduct of a business, trade, or profession, is of poor moral character. . . ."

Permits also would be required for new installations and "alterations" but not "repairs" of systems containing (1) a Group 3 refrigerant, (2) more than 5 lbs. of Group 2 refrigerant, or (3) more than 20 lbs. of a Group 1 refrigerant.

The code defines "repair" of a refrigerating system as the replacement or renewal of any part of the entire system "with material or part of like type, size, and capacity for the purpose of its maintenance."

An "alteration" would be "any change involving an extension or addition to the system; a change in type of refrigerant; a change in the arrangement, type, or purpose of the original installation; a change in the size of the equipment utilized; relocation of a compressor, generator, condenser, condensing unit, or evaporator."

RSES MODEL REFRIGERATION REGISTRATION CODE

CHAPTER I

SECTION 1. Scope and Application of Refrigeration Code

The provisions of this Code shall govern the installation of all mechanical refrigerating systems installed in public or private structures in the City of . . . subsequent to the adoption of this code. This code shall apply to the alteration, replacement, repair, and maintenance of all mechanical refrigerating systems in . . .

(Concluded on Back Page, Column 1)

Mitchell Adds $\frac{1}{2}$ and $\frac{1}{3}$ -Hp. Window Units

CHICAGO—Addition of $\frac{1}{2}$ and $\frac{1}{3}$ -hp. models to the 1953 Mitchell line of window-type room air conditioners was announced recently by B. A. Mitchell Mfg. Co. here.

Featuring an entirely new cabinet design and an economical high-powered cooling unit, these models join the $\frac{1}{2}$ and 1-hp. "Dyna-Heat" models previously introduced. The larger models are equipped to both heat and cool, while the two smaller models are designed for cooling only.

The cabinet, interchangeable on the $\frac{1}{2}$ and $\frac{1}{3}$ -hp. units, is constructed of 19-gauge furnace steel and durable Styron plastic finished in decorator's beige. On these two models, the cabinet projects only 12 $\frac{1}{4}$ in. into the room. Overall dimensions are 13 $\frac{1}{4}$ in. high, 24 $\frac{1}{4}$ in. wide, and 27 $\frac{1}{4}$ in. deep. The units slide easily into the window like a dresser drawer.

Other outstanding features of the 1953 Mitchell units are the newly designed "Sound Muffler" and centrifugal blower fan which permit almost noiseless operation with maximum cooling maintained, and the "Comfort Flow" adjustable air delivery grilles which allow the user to (Concluded on Page 4, Column 1)

Automatic Washer To Be Added to Hamilton Line

TWO RIVERS, Wis.—Hamilton Mfg. Co. here has announced that it will add an automatic washer to its line of automatic clothes dryers.

The company, pioneer maker of dryers, is entering the automatic washer market in order to provide its dealers and distributors with matched units, according to E. P. Hamilton, president.

The new washer is of the agitator type and will be priced competitively, Hamilton stated. Production is scheduled to begin in May.

Hamilton said many of the company's dealers and distributors "have been urging us to take this step." He added that the acceptance achieved by the Hamilton dryer "assures that a matching companion piece will be given a welcome reception. Now we can supply a complete automatic home laundry."

David E. Feinberg Named UsAirco General Manager

MINNEAPOLIS—David E. Feinberg has been named general manager of United States Air Conditioning Corp. to succeed his father, A. A. Feinberg, who died Oct. 7.

David Feinberg, a vice president of the corporation since May, 1951, has also served as sales manager of the company's refrigeration division and coordinator of UsAirco's defense production activities.



D. E. Feinberg

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Servel Window Cooler

GENTLE TUG of the grill knob changes the directional flow of air from Servel's new window-type room air conditioner. Each of the four sections of the grill can be turned individually or in combination to suit the user. A feature of the unit is the single dial on top which controls the entire operation. Smart styling enhances room decor.

Retailers Can't Advertise That They Absorb Excise Tax

WASHINGTON, D. C.—Memo to retailers from the Internal Revenue Bureau: "Don't advertise that you are 'absorbing' the Federal excise tax on an article; it might cost you a fine as high as \$1,000."

According to the American Retail Federation, the Bureau has informally ruled that such a statement leads customers to believe that the tax is not included in the price.

This is punishable by a fine of not more than \$1,000 under Section 2409 of the Internal Revenue Code.

New Reinhard Div. Will Aid Dealers In Solving Merchandising Problems

MINNEAPOLIS—Reinhard Bros. here has announced the formation of a new major appliance division within its organization to be headed by Ralph H. Wichman.

Wichman comes to Reinhard's from another Twin Cities major appliance distributor where he was general sales manager. Earlier he was associated with Sears Roebuck & Co. in store management, sales training and merchandise supervision. He also served in these same capacities with Montgomery Ward & Co. in appliances and various other hard lines.

This new division—entirely separate from the present departments of Bendix, Zenith, and others—has been set up "for the purpose of formulating a complete program with an entirely different approach to the problem of servicing the Reinhard dealer organization," it was explained.

"The day of the distributor salesman, as such, is past," said Wichman.

"Our program will be one of service to the dealer in every phase of good retail operation."

"Our men will be sales and merchandise counselors with knowledge of sales, advertising, merchandising, buying, inventory control, etc. This means that the Reinhard representative will be able to assist dealers in solving just about any problem that may arise regarding sound merchandising procedure."

Universal Nets \$120,661 For Its First 6 Months

LIMA, Ohio—Universal Major Elec Appliances, Inc., reports net income of \$120,661, equal to eight cents a share on the 1,492,905 1/2 common shares outstanding, for the first six months of its corporate existence, which commenced April 1, 1952. Net income resulted after provision for Federal income taxes and employees' profit sharing.

According to the cumulative statement for the same period, ended Sept. 20, 1952, net sales were \$6,013,181, each month's operations since the company's formation having been profitable.

Morton L. Clark, president of Universal, explained that net income for the six months before provision for Federal income taxes and employees' profit sharing was \$324,361, or 21 cents per common share. Taxes accounted for \$123,800, profit sharing \$79,900.

B.A.C. Sells Fan Division To Stamford, Conn. Firm

BALTIMORE, Md.—Baltimore Aircoil Co., Inc., manufacturer of evaporative condensers and cooling towers, announces the sale of its fan division, Baltimore Fan Co., to Universal Industrial Propeller Co. of Stamford, Conn.

This organization will handle the manufacture and sales of industrial propellers formerly manufactured by Baltimore Fan.

Selmix Dispenser Names White and Stringham

LONG ISLAND CITY, N. Y.—Russell Stringham's appointment as sales manager of Refrigeration Parts Co., parts wholesaler here, has been announced by Arthur Segal, president of Selmix Dispenser, Inc.

The latter company recently acquired the name, operation, and some of the assets of the wholesale firm of James H. White, the owner, of Brooklyn, and moved the operation to a new location at 21-09 Borden Ave. here.

White has been named vice president of the parent firm in charge of developing and manufacturing refrigeration equipment. He will also serve as vice president of the subsidiary.

I-H Employees To Make Purchases from Dealers

CHICAGO—The National Appliance & Radio-TV Dealers Association has commended International Harvester for changing its employee sales program so that sales are processed through retailers instead of being handled directly by the factory.

The change in the company's employee sales procedure is to take effect on Jan. 1, A. W. Bernsohn, NARDA managing director, said. His complete statement follows:

"We have learned that International Harvester is reverting back to its former policy of handling all employee sales through its franchised retailers."

"This should have a healthy effect on all of the many markets in which Harvester and its subsidiaries have factories, both in the handling of this company's products and of others...."

"It is our understanding that after Jan. 1, employees will be permitted to purchase one freezer and one refrigerator of that year's make each year and may secure certificates entitling them to these employee privileges."

"The dealers, upon presentation of these certificates, allow the company employees 20% off list and handle delivery and installations as they do those for their regular customers. Factory reimburses the dealer 10%."

Sherer Centennial Sets Yearly Volume Record

MARSHALL, Mich.—The centennial year of the establishment of Sherer-Gillett Co. has been marked by the attainment of the largest yearly sales volume in the history of the company, the firm reported recently.

"Established in 1852, the name of Sherer has always been associated with food merchants and food merchandising," the company noted.

"In the very early days of the original concern, the chief business of the company was the wholesaling of foods. For many years afterwards the manufacture and sale of bulk food counters made the Sherer name one of the best-known in the store equipment field.

"Later, when the advent of packaged foods curtailed the need for bulk food display and storage counters, the company turned to the manufacture of commercial display and storage refrigerators and has concentrated entirely on their production and sale for the past 25 years."

"On Nov. 7, 1952, shipment of a Sherer model 3110C self-serve dairy case, included with other refrigerators, made to Lochhead Refrigeration in Chester, Ill., brought the company's sales for the year up to a volume exceeding any previous annual billing."

"Lochhead Refrigeration is new as a distributor in the Sherer organization, having been one of the many added during the company's centennial year."

New Toledo Dealers' Group Joins with NARDA

TOLEDO, Ohio—The Toledo Retail Appliance Dealers Association voted unanimously to affiliate with NARDA at a meeting held in November which was addressed by NARDA Managing Director A. W. Bernsohn.

The newly-formed organization has a nucleus of 35 members and plans to expand to approximately 70. Officers of the TRDA are E. H. Irwin of Better Home Appliances, president; C. D. McMullin of DeVeaux Television and Appliances, vice president; Jack Center of Phillips Appliances, secretary-treasurer. Harold Scheer of the law firm of Friedman & Scheer will serve as executive secretary.



"Now is a good time to bring your Lehigh file up to date"—

Says the LEHIGH TEAM

New REFRIGERATED TRUCK CATALOG

Basic information, wiring, piping diagrams, specifications, useful data on one of the fastest growing specialties in the industry.

New AUTOMATIC DEFROST CATALOG

Complete facts about Lehigh's packaged systems which save so much time, money and labor. Your customers will be asking about them!

New CONDENSING UNIT CATALOG

Complete catalog of capacities and specifications for air cooled, water cooled and air-water cooled units.

Available also are a group of general catalogs, price lists, parts lists, etc., which you need to complete your files. All yours for the asking!

Season's Greetings
From All Your Friends
At Lehigh!



Lehigh BLU-COLD
CONDENSING UNITS and SYSTEMS

Lehigh Manufacturing Co., Lancaster, Pa. DIVISION OF LEHIGH FOUNDRIES, INC.
Manufacturers of Malleable & Grey Iron Castings, Refrigerating Equipment, Air Valves, Automatic Vending Machines

BUY FROM YOUR
WHOLESALE

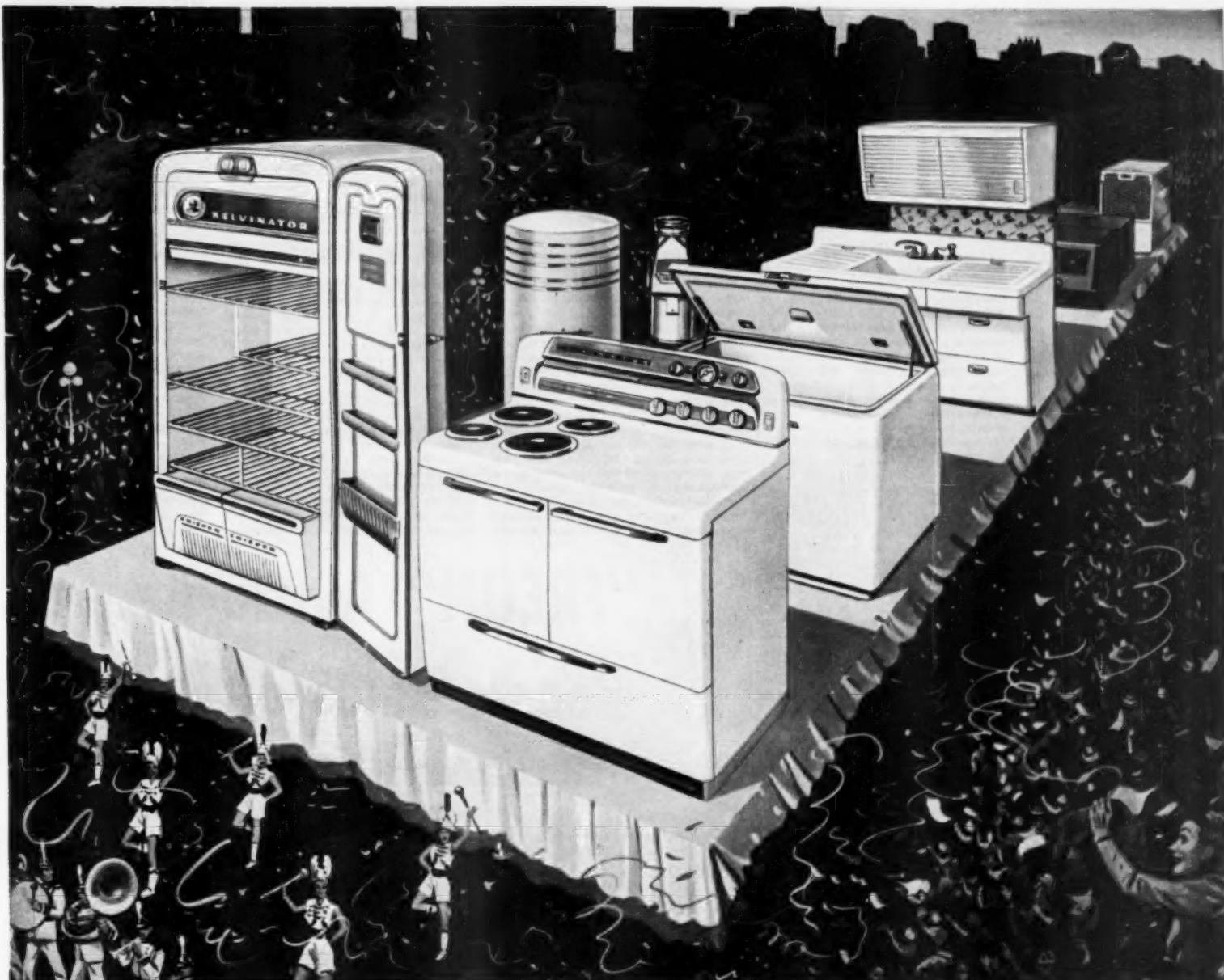
their ingenuity in meeting economic crises.

Despite the many handicaps they faced during various economic disturbances, wholesalers were alert to meet the changed conditions and readily turned their energies to serving their customers in whatever other ways circumstances warranted. Through periods of plenty and shortages alike, wholesalers provided the stimuli that was needed.

They demonstrated their unusual stamina and aggressiveness, for most of them are still "in there pitching"—passing on to their customers the benefits of that invaluable experience.

We, here at Wolverine, hold the wholesaler in high regard and consider him a very important factor in today's distribution pattern. That is evidenced by the emphasis we place on the phrase "Buy from your wholesaler."

With every passing year, we can see the wholesaler growing in stature. He recognizes more and more the value of the kind of merchandise that he can stand behind—and Wolverine tube, we are glad to say, is one of these items. WOLVERINE TUBE DIVISION, Calumet & Hecla, Inc., Manufacturers of tubing exclusively, 1413 Central Avenue, Detroit 9, Michigan.



Here comes the parade!

STRIKE UP THE BAND! Here comes the spectacular parade of new Kelvinator products for 1953.

First in the parade come strikingly beautiful new Kelvinator refrigerators packed with showmanship features to make the salesman's product demonstration sing.

Then comes Kelvinator's sensational 1953 line of electric ranges...highly styled in chrome trim to catch the prospect's eye and glamorize her kitchen.

There's a new and brilliant line of kitchen cabinets with sliding glass doors, fluorescent lights and dozens of other exclusive Kelvinator features...they are beyond comparison for beauty and utility!

And there are the dependable Kelvinator freezers with a new 18 cu. ft. upright to capture its share of sales in this important segment of the

freezer market.

Kelvinator is bringing its retailers, too, new room air conditioners with exclusive features of operation. Their beauty will blend harmoniously with every home and office decor. And, as retailers well know, there will be other products to be announced early in 1953.

Kelvinator retailers will have a full line of products to sell in 1953—products for greater convenience and comfort in the home—and they are backed by the Kelvinator franchise that means real progress in an industry which has recently seen unsound practices make retailing profits difficult.

Yes, this parade of 1953 products brings new opportunity for the progress of Kelvinator retailers everywhere—it is striking evidence of the "retail-mindedness" of Kelvinator—the most valuable franchise in the appliance industry today.

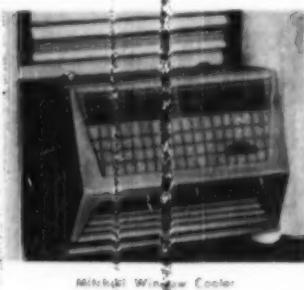
THERE IS A BETTER FRANCHISE . . .

IT'S **Kelvinator**

Division of Nash-Kelvinator Corporation, Detroit 32, Michigan

THE MOST VALUABLE FRANCHISE IN THE APPLIANCE INDUSTRY

REFRIGERATORS • RANGES • FREEZERS • WATER HEATERS • DEHUMIDIFIERS • KITCHEN CABINETS • SINKS • "ELECTRO-DRAIN" GARBAGE DISPOSERS • ROOM AIR CONDITIONERS



Mitchell Window Cooler

Servel Announces 1953 Prices--

(Concluded from Page 1, Column 4)
cluding \$150 frozen food allowance); HF 223, 22 cu. ft., \$659.50 (including \$200 frozen food allowance).

The following refrigerator prices were announced at the close of the company's annual sales convention by James F. Donnelly, vice president in charge of sales:

GAS OR ELECTRIC ABSORPTION MODELS

Automatic Ice Maker Series

Model 1139G (gas) or model 1139E (electric) automatic ice maker; two doors; separate freezer compartment; total storage capacity, 11.8 cu. ft.; frozen storage capacity, 2 cu. ft.; shelf area, 20.1 sq. ft.; 10-year warranty, suggested installed price, \$599.95.

Model 1037G (gas) or model 1037E (electric) automatic ice maker; one door; full-width freezer compartment; total storage capacity, 10.4 cu. ft.; frozen storage capacity, 1.3 cu. ft.; shelf area, 19.3 sq. ft.; 10-year warranty, suggested installed price, \$589.95.

Model 938G (gas) or model 938E (electric) automatic ice maker; two doors; separate freezer compartment; total storage capacity, 9.6 cu. ft.; frozen storage capacity, 1.7 cu. ft.; shelf area, 18.1 sq. ft.; 10-year warranty, suggested installed price, \$549.95.

Model 1138G (gas) and Model 1138E (electric) two doors; separate freezer compartment; total storage capacity, 11.8 cu. ft.; frozen storage capacity, 2 cu. ft.; shelf area, 20.4 sq. ft.; 10-year warranty, suggested installed price, \$629.95.

Model 1036G (gas) and model 1036E (electric) one door; full-width freezer compartment; total storage capacity, 10.5 cu. ft.; frozen storage volume, 1.5 cu. ft.; shelf area, 19.6 sq. ft.; 10-year warranty, suggested price of \$419.95 including installation.

Model 938G (gas) and model 938E (electric) two doors; separate freezer compartment; total storage capacity, 9.6 cu. ft.; frozen storage capacity, 1.7 cu. ft.; shelf area, 18.4 sq. ft.; 10-year warranty, suggested installed price, \$479.95.

Model 836G (gas) and model 836E (electric) one door; full-width freezer compartment; total storage capacity, 8.3 cu. ft.; frozen storage capacity, 0.9 cu. ft.; shelf area, 15.7 sq. ft.; 10-year warranty, suggested installed price, \$299.95.

Style Line Series

Model 1138C—two doors; separate freezer compartment; total storage capacity, 11.7 cu. ft.; frozen storage capacity, 2 cu. ft.; shelf area, 20 sq. ft.; 5-year warranty; suggested installed price, \$519.50.

Model 1136C—one door; full-width freezer compartment; total storage capacity, 10.9 cu. ft.; frozen storage capacity, 1.8 cu. ft.; shelf area, 19.4 sq. ft.; 5-year warranty; suggested installed price, \$499.50.

Model 936C—one door; full-width freezer compartment; total storage capacity, 9.3 cu. ft.; frozen storage

capacity, 1.5 cu. ft.; shelf area, 16 sq. ft.; 5-year warranty; suggested installed price, \$329.50.

Model 1137C—automatic ice maker; one door; full-width freezer compartment; total storage capacity, 10.8 cu. ft.; frozen storage capacity, 1.7 cu. ft.; shelf area, 19.1 sq. ft.; 5-year warranty, suggested installed price, \$469.50.

Model 939C—automatic ice maker; two doors; separate freezer compartment; total storage capacity, 9.5 cu. ft.; frozen storage capacity, 1.3 cu. ft.; shelf area, 17.7 sq. ft.; 5-year warranty, suggested installed price, \$529.50.

Model 937C—automatic ice maker; one door; full-width freezer compartment; total storage capacity, 9.1 cu. ft.; frozen storage capacity, 1.3 cu. ft.; shelf area, 15.7 sq. ft.; 5-year warranty, suggested installed price, \$499.50.

Model 938C—two doors; separate freezer compartment; total storage capacity, 11.7 cu. ft.; frozen storage capacity, 2 cu. ft.; shelf area, 20 sq. ft.; 5-year warranty; suggested installed price, \$519.50.

Model 1136C—one door; full-width freezer compartment; total storage capacity, 10.9 cu. ft.; frozen storage capacity, 1.8 cu. ft.; shelf area, 19.4 sq. ft.; 5-year warranty; suggested installed price, \$499.50.

Model 936C—one door; full-width freezer compartment; total storage capacity, 9.3 cu. ft.; frozen storage capacity, 1.5 cu. ft.; shelf area, 18.1 sq. ft.; 5-year warranty; suggested installed price, \$459.50.

Model 1138C—one door; full-width freezer compartment; total storage capacity, 11.7 cu. ft.; frozen storage capacity, 2 cu. ft.; shelf area, 20 sq. ft.; 5-year warranty; suggested installed price, \$519.50.

Model 1136C—one door; full-width freezer compartment; total storage capacity, 10.9 cu. ft.; frozen storage capacity, 1.8 cu. ft.; shelf area, 19.4 sq. ft.; 5-year warranty; suggested installed price, \$499.50.

Model 936C—one door; full-width freezer compartment; total storage capacity, 9.3 cu. ft.; frozen storage

capacity, 1.5 cu. ft.; shelf area, 16 sq. ft.; 5-year warranty; suggested installed price, \$329.50.

All prices listed above are for right-hand models. Left-hand doors are available on all models. With exception of 634G and 634E, they are priced slightly higher.

Jones said that production savings had made possible some substantial price cuts in spite of the fact that the new gas and electric absorption models contain many improvements not incorporated in their 1952 counterparts.

Following is a comparison of the 1953 and 1952 suggested cash installed prices which apply to both gas and electric absorption models:

Model	1953	1952	Price Cut
6.1 cu. ft.	\$219.95	\$249.95	\$30
8.2 cu. ft.	259.95	299.95	40
8.3 cu. ft.	299.95	389.95	90
9.6 cu. ft.	479.95	499.95	20
11.8 cu. ft.	529.95	549.95	20

Knoff Appointment--

(Concluded from Page 1, Column 2)

A graduate of the University of Washington, he entered the selling field in 1924 as an automobile salesman. From 1929 to 1942 he was with the Ford Motor Co. and in 1942 he joined the Delta Ship Building Co. in New Orleans.

Knoff joined Chrysler Airtemp June 1, 1945, as a district representative in the division's New Orleans region. He became regional manager there and later was transferred to Dayton as southern divisional manager in 1947.

In 1948 Knoff was named sales director of Airtemp. In 1951 he was promoted to general sales manager.



Fresh'n'Aire Year-Round Cooler

Fresh'n'Aire--

(Concluded from Page 1, Column 2)
performs the following functions:

Filters and heats the air; filters and dehumidifies the air; exhausts stale air; becomes a low speed ventilator to provide filtered, fresh air; becomes a high speed ventilator for filtered fresh air; has a special "slumber speed" for slow-speed night-time cooling.

Also available on Fresh'n'Aire models A-334 and A-310 is an automatic thermostat which reportedly enables complete automatic temperature control for cooling and heating.

Other advancements have been made in over-all styling and installation convenience. The cabinet has been streamlined and simplified so as to blend into any room setting. It projects only 9½ in. into the room. Fresh'n'Aire is starting production immediately. Units will be available for shipment to the trade immediately after Jan. 1, 1953.

"FREON" Aid to Architects Boosts Sales of Equipment



Ad Campaign Highlights Air Conditioning Installations

Stresses Importance of Safe Refrigerants

You've probably seen some of these double-page "Freon" ads. They offer a wealth of information of interest to architects, designers and consulting engineers. These are the men who plan, recommend and often influence selection and purchase of air conditioning and refrigeration equipment for all types of commercial, household and industrial applications.

The campaign consists of a series of papers prepared

by leading authorities. They have made a thorough study of the subjects discussed and cover each subject from the architect's point of view . . . presenting important highlights on various air conditioning problems. They suggest the best steps to take in planning air conditioning systems . . . warn of pitfalls . . . recommend proper methods of handling many details incidental to different types of installations.

Subjects treated during the past four years have been many and varied. The list appears like the index of an engineering textbook. With publication of the current (December) paper, twenty-four major air conditioning topics will have been reviewed.

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What 'Features' Will Room Coolers Add?

Heating, Deodorizing, Automatic Control Seen Most Likely Additions as Engineers Debate Room Unit's Future Design

NEW YORK CITY—Today's "room air conditioner" is already much more than a mere "room cooler" and tomorrow's models may add further functions that will increase its saleability, it was brought out at the Room Air Conditioner Conference which was part of the annual American Society of Refrigerating Engineers convention here.

Some of the further functions of the room air conditioner that either are incorporated in some present-day units, or which may be added to future models, are: heating, humidifying, deodorizing, air sterilization, and automatic controls.

Electric "strip" heaters have been the conventional method of supplying the heating function in room units, it was brought out in the discussion of "Special Features" led by W. L. McGrath, Carrier Corp. In making use of strip heaters, it was pointed out that care must be taken to see that the heating elements don't impose a greater "draw" on the power lines than the compressor; to make certain that controls are so arranged as to prevent operation of both the heater and the compressor at the same time or operation of the heater without the blower in operation.

The "heat pump" cycle can readily be applied in a room air conditioner with the addition of valves, controls, and certain accessories. Some units have already been put into operation

with this feature. Paul Moore, York Corp., who acted as chairman of the conference, said he had been heating his office satisfactorily with a heat pump room air conditioner, and stated that he also had one installed in his home, where it is being used alternately with his fireplace.

'Heat Pump' In Room Units

While the heat pump heating cycle cannot be expected to provide complete interior comfort in below freezing weather (and probably shouldn't be used in weather that cold because the outside heat exchange surface will frost up), it will provide comfort in weather that requires some type of heating to take off the chill, and would eliminate the need for special separate heaters or turning on the furnace under such conditions.

It is estimated that a heat pump type room air conditioner could be in use year-round in well over 50% of the U. S. market, and that it would have considerable use as a "seasonal" heater in the rest of the market.

Humidifying Is Unlikely

Some of the earliest models of room air conditioners provided a humidifying function, but practically none do today. Maintenance is messy and difficult with the "hand filled" type of humidifier, speakers at the

conference pointed out, and a humidifier that is connected to the water system is expensive.

Air filters used in room air conditioners have generally been of relatively low efficiency, but it is pointed out that a deep filter is unnecessary because household dust is in small particles.

For allergy sufferers, the unit shouldn't be operated with the ventilating or outside air function, but only with recirculating air. If it can be controlled, the relative humidity should be kept as low as possible for an allergy sufferer.

Problems In Odor Control

Producers of room air conditioners haven't jumped into providing deodorizing equipment on their product, as yet. The "masking" type of odor control (about the same thing as sprinkling perfume into the air) is not looked upon with favor.

Activated carbon units are recognized as effective odor controllers, but such units properly sized for room units are not in production, and the air pressures generally believed needed for successful operation of activated carbon units constitute a problem, the speakers declared.

The evaporator in the room air conditioner is an "odor remover" in itself, as odors condense on the cold coil. However, this is not an unmixed blessing, as these accumulated odors



ROOM COOLER NEWS

are thrown into the room when the blower is started up after having been off for awhile.

In fact, H. L. Laube, president of Remington Corp., believes that this matter of "odor retention and regeneration" on the cooling coil is one of the room air conditioner industry's major problems, to which no other solution than exhausting or dilution of outside air has as yet been advanced.

Air sterilization is another function which has been given some consideration, but there would be problems in obtaining the proper dilution with a glycol solution, for example, in a room air conditioner.

Types of Controls

Some form of automatic temperature control is being incorporated in a great many room air conditioner models today. The thermostatic control is probably the most simple and most direct, but it imposes a rather rough load on the power line and results in light flicker, etc. In fact, J. R. Hartman, Edison Electric Institute speaker on the program, said that power companies much prefer "refrigerant control systems" rather than thermostatically controlled units.

Other types of controls which may be considered desirable are a "step control" to cut compressor operating time, and some control means to get lower coil temperatures and consequently lower relative humidities.

Variation of fan speed is another recommended feature. Standard speeds can be used for normal conditions, and higher speeds where the load is increased.

"Should such features be included as 'standard' on room air conditioners, or should they be considered as accessories which can be added," asked McGrath. "This is a question which the industry must resolve."

"Most room air conditioner dealers, unlike automobile dealers, do not have the facilities to 'add on' these accessories, and that is a factor."

Ventilation Problems

In using the window-type room air conditioner for ventilation purposes, warning was given on the possibility of getting poor results because of improper damper arrangement or incorrect designing.

In tall buildings, if the damper arrangement or design is incorrect, the "stack" effect of wind velocity may result in air being drawn out, instead of into the building. In the exhaust air function, the opposite will be true, in that the stack effect will permit proper exhausting operations on the upper floors, but not on the lower floors.

Because the room air conditioner must necessarily be of such construction that it cannot be "highly styled," styling must be "low key," declared C. A. Peterson, Design Consultant of Williamsport, Pa.

Such units must be quietly in taste, and blend with their surroundings, but the design must be distinctive and have the look of quality. Color is of prime importance, he declared.

3/4-hp., 115-v. Unit Doomed?

Declaring that "the 3/4-hp., 115-volt room air conditioner is doomed," C. C. Fitzsimmons, engineer for Underwriters' Laboratories, Inc., pointed out the dangers and problems in using room units over 1/2 hp. on 115-volt power lines.

Fitzsimmons also outlined the new Underwriters' Laboratories standards for air conditioning equipment (which were covered in detail in recent issues of the News).

Seek Corrosion Solution

In the open discussion following the formal presentations at the Room Air Conditioner Conference, considerable time was devoted to consideration of the problem of reducing the weight of the room unit, and also to the matter of combating corrosion of exposed parts, particularly in sea-coast towns and areas subject to high humidities.

Suggestion was made that increased use of aluminum in various parts and components of room air conditioners would assist in weight reduction. Relative to this point, Laube asked if anyone could express an opinion as to how aluminum fins

on heat exchange tubing was holding up sea-coast areas.

A representative of Fedders-Quigan Corp. answered by stating that their investigations had shown that aluminum fins were holding up very well in such areas.

It was stated that there is, however, a general problem with the corrosion and rusting of exterior parts in such areas, and some dealers are said to have removed the conventional finishes and have substituted an aluminum or galvanized finish. McGrath of Carrier said that a possible solution to the problem might be the use of zinc undercoating.

A representative of the Glidden Co. urged that studies should be made of the problem of finishes in such areas, and suggested that the room air conditioner field follow the methods used by the home laundry appliance industry to tackle the problems of corrosion.

G-E Appliance Div. To Open Year-Round Showroom In Mart

LOUISVILLE, Ky.—A year-round showroom will be opened on the 11th floor of the Merchandise Mart in Chicago on Jan. 5 by General Electric Co.'s Major Appliance Div., it has been announced by J. F. McBride, manager of sales planning.

The layout, which comprises about 3,500 sq. ft. of display area and more than 1,500 sq. ft. of office space, has been designed by Amos Parrish & Co. of New York City, merchandising consultant for department stores.

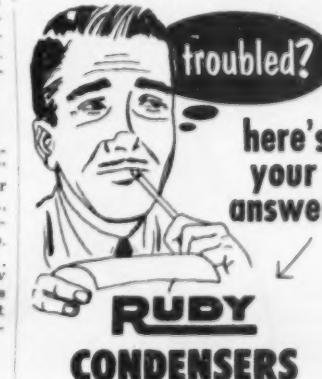
The display area has been planned to provide open vistas for the most advantageous showing of appliances and to suggest ways in which dealers and department stores can display the General Electric line most effectively, according to McBride.

Appliances will be spotted around the perimeter of the display area and will be complemented by island displays to highlight certain models. A complete and operating "television kitchen" will also be a part of the exhibit. All displays will be arranged to permit an unrestricted flow of traffic.

One section of the display area will be set aside as an "Idea Room" for demonstrations of Consumers Institute and Home Bureau activities and the presentation of sales education programs and special merchandising activities.

The entire area will be sound-conditioned to provide the best possible acoustics, and air conditioned for year-round comfort.

J. B. Strecker, north central district manager for the major appliance division, and a full complement of field personnel will be quartered in the offices adjoining the showroom.



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Air Conditioning the Modern Restaurant	Air Conditioning the Small Store
Air Conditioning for Modern Office Buildings	Air Conditioning the Modern Hotel
Refrigeration in Fur Storage	Air Conditioning the Modern Auditorium
Air Conditioning the Modern Hospital	Air Conditioning the Modern Apartment House
Air Conditioning Retail Food Stores	Air Conditioning Existing Office Buildings
Air Conditioning the Modern Industrial Building	Air Conditioning for Tobacco Manufacturing (Hygroscopic Substances in Mass Production)
Theater Air Conditioning	Air Conditioning for Modern Food Processing and Packaging Operations
Air Conditioning the Modern Haberdashery	(Proposed) Air Conditioning for Shopping Centers

These informative articles represent one of the most imposing compilations ever made on the subject of air conditioning applications. Reprints of the various papers have been sent to architects, designers, draftsmen, engineers and others, and they have been enthusiastically received everywhere. Although widespread distribution is impractical, if you have special interest in any of the featured subjects, copies are available upon request on your own letterhead. No obligation. Simply write . . . naming the articles which you would like to receive. At a later date the complete file of these papers may be issued in reference-book form. At present, however, only separate reprints are available.

OTHER "FREON" ADVERTISING

"Freon" refrigerants are extensively advertised in other markets as well. A forceful campaign directed to business executives throughout the country emphasizes many ways in which air conditioning and refrigeration are now being used in industry. The ads show how these two facilities help save money . . . save time . . . reduce costs . . . boost production . . . increase employee morale . . . and improve product quality. It presents a story of timely interest to those who make important decisions with respect to purchasing equipment.

Still another series of messages addressed to food processors currently displays outstanding air conditioning and refrigeration installations within the food industry.

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"FREON" SAFE REFRIGERANTS

"Freon" is Du Pont's registered trade-mark for its fluorinated hydrocarbon refrigerants.



(Concluded from Page 1, Column 1)
Editor with Time Magazine in New York. Before being transferred to New York last fall, Bill had lived in Panama for many years and his five-year-old son, Peter, had never spent Christmas in the United States. Being very anxious to have Peter see Santa Claus, Bill took him down to one of the big department stores a few weeks before Christmas.

He put Peter at the end of a long line of impatient tots and stood by to watch how his son would handle this new situation. When it finally came Peter's turn to talk to Santa Claus, Santa picked him up, set him on his knee and asked, "Well, sonny, what do you want for Christmas?"

Peter enthusiastically rattled off a long list of things and then got down as Santa promised to see what he could do about it.

"But," protested Peter, "aren't you going to write it down? Won't you forget what I asked for?"

"Don't worry, I never forget," replied Santa.

As Peter left, a doubting scowl on his brow, he turned and walked to the end of the line again. After a considerable wait, when it was finally Peter's turn again, Santa picked him up, set him on his knee and asked, "Well, sonny, what do you want for Christmas?"

F. A. BIRKALL



Amana Sales Meeting Jan. 4-5 To Be Filled With Discussions, Tours, Entertainment

AMANA, Iowa—Amana Refrigeration, Inc., manufacturer of Amana freezers, will conduct a two-day annual sales convention in Cedar Rapids, Iowa, on Jan. 4 and 5. George C. Foerstner, vice president and general manager, announced recently. Distributor personnel from all over the United States and Canada have been invited.

Beginning with the George Foerstner "Eye-Opener Breakfast" at 7:45 a.m. on Sunday, Jan. 4 at Cedar Rapids Memorial Coliseum, until train departure late Monday afternoon, every moment will be filled with activity.

The 1953 line of Amana upright and chest freezers will be the center of attraction.

Top-level company executives will discuss the Accelerated Amana Plan which provides the theme of the convention. This includes dynamic new approaches to merchandising, promotion, and advertising commensurate with the enormous expansion of the physical plant.

Participating in the product and

merchandising presentation will be E. L. Hinchliff, national sales manager; Merlin E. Morris, advertising manager; W. J. Dickinson, director of sales training; Barbara Johnston, coordinator of home economics, and other department heads.

On Monday morning, Jan. 5, the entire party will board chartered busses for a trip to the Amana Colony. Specially trained guides will conduct tours to points of interest which annually attract thousands of visitors. Climaxing the day will be a tour through the ultra-modern Amana plant where guests will receive thorough briefing on the product they sell. Loud speakers installed in the plant will allow everyone to hear and see perfectly each step of building Amana freezers.

When the conventioneers are ready to leave, a special Streamliner will be waiting on the spur tracks which flank the shipping platform of the Amana plant. The Streamliner, by courtesy of Amana, will carry the visitors to Chicago where many of them will attend the Marts.



BEST GUESS of how many packages of frozen food are stored in this home freezer wins a holiday turkey for a possible freezer prospect, builds store traffic, and makes attractive window display for Chicago's Amana distributor.

Christmas Display Offers Turkey for Best Guess on Packages In Freezer

CHICAGO Guess how many frozen food packages in this Amana freezer and win a Christmas turkey free.

That's the offer made in a "White Christmas" display appearing in the S. Michigan Ave. window of the local Amana food freezer distributor. Sparkling with holiday spirit and tinsel-frosted decorations, the window

contains both the upright and chest-type Amana freezers. A sign in the window urges "This Christmas give an Amana freezer, the only gift that pays for itself."

Created as a keynote for a Christmas sales program, the window will be echoed by local Amana dealers, installed as part of the distributor's dealer-aid program.

Food Plan Representatives, Processors, Freezer Mfrs. Form Food Plan Dealers Assn. In N.Y. City Area

NEW YORK CITY — To assure "that consumers receive the full benefits of freezer-food plans," representatives of food plans, food processors, freezer manufacturers, and allied businesses in the metropolitan New York area have formed the Food Plan Dealers Association, it was announced recently.

The group has already adopted a code of standards for food plan operators, and plans to soon begin to promote to the public a seal symbolizing these standards. The public will be advised to patronize food plans which carry this seal.

Incorporated under the laws of New York State, the group has elected these temporary officers: President, Harvey Farber, Amana Products, Inc., freezer distributor and food plan operator; treasurer, Chris A. Blunt, A.L.S.C.O. Food Plan; and secretary, Ted Brody, Utility Appliances, food plan operator.

Peter R. Dorsey, an attorney, has been named counsel for the group and chairman of its steering committee. His office at 109-12 Jamaica Ave., Richmond Hill, N. Y., is serving as the group's temporary headquarters.

The 14-man steering committee, chosen by the 85 representatives of the various organizations who formed the new FPDA, has adopted this four-point code for the group:

"1. The Food Plan Dealers Association and its membership subscribes to the set of standards for selling and advertising of freezer-food plans as set forth by the National Better Business Bureau and its affiliates:

"2. The association pledges itself and its membership to comply with all governmental regulations pertaining to freezer-food plans;

"3. The association's members agree to sell their products and services at fair prices, in accordance with accepted good business practices;

"4. The association will cooperate with the Better Business Bureau and other public and governmental organizations to promote the objectives of Food Plan Dealers Association."

Charter membership in the group is open until Jan. 31, 1953, to all firms in the food plan industry and in allied businesses. Charter members pay a \$100 fee. Initiation fees for firms who join after the Jan. 31 deadline and annual dues will be set at a later date.

The next general membership meeting of the group has been tentatively scheduled to be held Jan. 19, 1953.

Members of the group's steering committee include:

George Alpert, of George Alpert Co., district merchandiser for Orley freezers; Robert Corey, of Corey Farms; William J. Buckman, of the Rich Plan; Blunt; Farber; Brody; Dorsey; Nat Friedman, Meat-O-Mat, home freezer food supplier; George Drewes, Jersey Packing Co., Food Div.; Ben Shindler, Beinecke Frosted Foods Co. (Puritan), meat processor; Henry Stein, Freez-Aid Food Plan; Alan A. Fishkin, Bresmer Food Plan; Clayton J. London, Lifetime Economy Food Plan; and Bill Lippman, Terminal Home Sales Corp.

Bending's much easier WHEN YOU WORK WITH REVERE DRYSEAL REFRIGERATION TUBE

Truly, it's no effort at all to bend dead-soft Dryseal. No tools are needed, just bend it by hand. And the special temper of the copper used, and its ductility, are the reasons Dryseal will not split when flared for compression fittings. Another thing you'll like about Dryseal are the special, precise, mechanical, double-crimped ends. This double crimping is the last step in the manufacture of Dryseal, and assures you of receiving a bone-dry, dirt-free tube.

The seal is made in such a way that it does not change the diameter of the tube. This makes it possible to pass the tube through any opening large enough for the tube itself. Economical tube sizes range from $\frac{1}{4}$ " to $\frac{3}{4}$ " O.D.

And, for your greater convenience, Dryseal is packed in a nifty-50 one-coil carton. This carton, which has been attractively designed for easy identification in stock, contains one 50-foot coil of Dryseal...is easier to handle, light weight, economical and is sturdily made to assure protection of the tube.

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MEAT NEED NOT be removed or temperature raised when a paint job is being done. Koch Supplies' odorless finishes can be applied to damp, sub-zero surfaces.

Cold Room Paints

Odorless Finishes Can Be Applied to Damp Surfaces, Will Flow at -50° F.

CONCORDIA, Mo.—Use of two new low temperature paints enabled Alewel Bros. to refinish the cooler and locker room of its locker plant here without removing the contents or raising storage temperatures.

The paints—"Damp-Proof" enamel and "Ice-Proof" enamel—are two of a line of paints developed by Koch Supplies, Kansas City, for cold rooms.

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Deminerilizer
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Small Cost
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Water Coolers and Pumps for 40 Years

FILTRINE MANUFACTURING CO.
BROOKLYN 5, N.Y.

Brushed on the walls of the 35' Alewel cooler, the Damp-Proof enamel dried in about two hours. It left no paint odor or taste, although meat was hanging in the cooler while the painting was done, according to the company.

"Hugo Alewel himself served beef from one of the quarters at his home the next day and made certain there was no change in flavor," Koch Supplies stated.

Ice-Proof enamel was brushed on the locker drawers at a room temperature of 0° and it, too, dried in two hours. This enamel is claimed to spread easily at temperatures as low as -50° F.

"Both paints can be applied to damp surfaces," the company said. "They permit moisture to escape through the painted surface, and afterwards form a seal against penetration of moisture."

Other products in the line are "Rust-No-More" metal finish for preventing or checking rust, and "Safety Floor" compound for reducing the risks of slipping on stairs, floors, ramps, platforms, and docks.

Truck-Trailer Mfrs. To Discuss Temp. Control At Jan. 26-28 Meeting

WASHINGTON, D.C.—A round-table discussion of the problems of temperature control for trucks and trailers has been scheduled for the 12th annual convention of the Truck-Trailer Manufacturers Association, to be held Jan. 26-28 at the Edgewater Gulf hotel, Edgewater Park, Miss.

The discussion will be held on the afternoon of Jan. 27. A similar discussion was held at the convention a year ago and proved of such interest that it was decided to bill another one this year, the association said.

Due to lead the discussion is Harold Johnson of the U.S. Department of Agriculture. He will be assisted by several refrigerator truck operators and manufacturing specialists in the refrigerator trailer field.

Key convention speakers will include Walter F. Carey, president of American Trucking Associations; Prof. Marvin J. Barloon, economist, Western Reserve University; R. C. Sollenberger, managing director, Conveyor Equipment Manufacturers Association; and Dr. Kenneth McFarland, ATA educational director.

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Westinghouse Appoints Weaver To Head Plant

SPRINGFIELD, Mass.—Appointment of J. R. Weaver as manager of manufacturing and engineering for the Springfield plant of the Westinghouse Electric Appliance Div. was announced recently by J. H. Ashbaugh, vice president.

Weaver, who will report to Ashbaugh, succeeds C. B. Dick, former works manager, who has been transferred to Pittsburgh.

At the same time, Ashbaugh reported the appointment of P. Y. Danley as commercial manager of Springfield products and he will report directly to Ashbaugh. He will also be responsible for all defense products made in the Westinghouse plant here. E. C. Watts, manager of coolers for Coca Cola sales, and H. F. Hildreth, manager of refrigeration specialties sales, will report to Danley.

The position Weaver holds is a new one for the local plant. He will be responsible for the operation of the plant and for the engineering of those products made in the Springfield plant.

These products include "Waste-Away" food dispensers, fans, vacuum cleaners, water coolers, milk coolers, and beverage coolers.

Weaver, from 1945 to 1948, was works manager of the Springfield plant. In 1948 he was transferred on assignment as vice president of the Baldwin-Hamilton Locomotive Corp. On completion of that assignment this year he was transferred to the Westinghouse headquarters manufacturing staff in Pittsburgh.

Both C. E. Corbin and L. A. Platz, principals of the agency, were former Viking sales engineers.

Selmix Plans To Make Office-Size Dispenser

LONG ISLAND CITY, N.Y.—Arthur Segal, president of Selmix Dispensers, Inc., reported recently that Selmix units will soon be made small enough to fit in any office.

Segal also said he hopes to increase the number of Selmix units in use "with the introduction of the first portable dispensers next spring."

Commenting on applications of his company's equipment, Segal pointed out that it is being used to dispense mixers and charged water in more than 500 bars in the New York City area alone.

Corbin & Platz To Handle Freez-Rite Display Cases

UTICA, Mich.—Bailey & Perkins Co.'s Freez-Rite Div. here has announced the appointment of Corbin & Platz Sales Agency of Kansas City, Mo. to handle its west central territory.

The agency will handle the division's line of frozen foods, dairy, and ice cream refrigerated display cabinets.

Both C. E. Corbin and L. A. Platz, principals of the agency, were former Viking sales engineers.

NCRSA 1953 Meeting Set For Cleveland Nov. 9-10

PHILADELPHIA—The seventh annual convention of the National Commercial Refrigerator Sales Association will be held on Monday and Tuesday, Nov. 9 and 10, 1953, at the Statler hotel in Cleveland, the group announced.

The meeting will take place during the Eighth All-Industry Refrigeration & Air Conditioning Exposition.

NCRSA pointed out that reservations for rooms must be made through the director of the Cleveland Housing Bureau, as all Cleveland hotels have agreed to make no assignments direct. However, the bureau will not begin assigning accommodations until next July or August, it was noted.

Minnesota Firm Awarded Westinghouse Franchise

BOSTON—A franchise to sell Westinghouse self-contained and field-assembled air conditioning equipment has been awarded to the National Engineering Co. of St. Paul. It was announced recently by W. B. Cott, sales manager for Westinghouse Air Conditioning.

National Engineering is headed by J. W. Gore.

What's the latest scoop on Ice Makers?



Now there are two sizes of Carrier Ice Makers: for 200 lbs. and 450 lbs. of ice a day... a capacity for every ice user in the market.

And once you get a foot in the door, you've made a sale. Because there's no doubt about the superiority of the Carrier Ice Maker. Features? It has loads of them... exclusive features, like:

- a factory-built-in crusher that takes no extra space.
- a divided bin for storing cubes and crushed ice at the same time.
- compactness... fits in 2 x 2 ft. floor space.

The market's ripe for this new Carrier Ice Maker, with a nice profit margin for you. Write for promotional aids today. Carrier Corporation, Syracuse, New York.

Carrier

air conditioning • refrigeration • industrial heating

You can show them in a few minutes how a Carrier Ice Maker can make \$1 worth of ice for about 15 cents' worth of water and electricity, at normal utility rates... how they can often pay for their Ice Maker out of savings in just one year.

These are the economic facts, and they're being aggressively advertised in these markets, setting up your prospects for your call.

They'll Do It Every Time . . . By Jimmy Hatlo



Have You READ 'Peace and Progress' Yet?

'Easily understandable...
and a great aid to service engineers'

REFRIGERATION PROBLEMS AND THEIR SOLUTION

By Paul Reed



him, you'll find reading these books the next best thing to a person-to-person chat about your refrigeration problems. Conveniently cross-indexed for instant use, "Refrigeration Problems and Their Solution" can provide "the missing link" in your search for authentic advice on "how to make it work."

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Measuring Temperature; What Heat Is; Temperature Pressure Relationships; Components in the Compression Cycle; Expansion Valves and Their Properties; Capillary Tube; Float Valves; Heat Exchangers; Oil-Refrigerant Mixtures; Control Settings; Air Circulation; Multiple Systems; etc.

VOLUME 2

Condensers; Compressor Shaft Seals; Defrosting Evaporators; Compressor Oil; Charging Refrigerant; Humidity and Air Circulation; Carbon Dioxide; Use of Gauges; Trouble Shooting; Preventive Maintenance; Control of Moisture; Leaks; Care of V-Belts; Lapping Seals; Plates; Service Charts.

VOLUME 3

Lost Time and Short Cuts; Refrigerants and Tables; Mollier Chart; Two and Three Stage Compression; Leaks and Moisture; Electric Currents; Single and Three Phase Systems; Motor Troubles; etc.

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VOLUME 67, NO. 17, SERIAL NO. 1,240, DECEMBER 22, 1952

"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—Charles A. Dana.

The Real Political Issue Is Business Management

(Concluded from Page 1)

either through higher prices to the consumer—or by shrinking dividends for investors—to flagrantly unfair levels for both.

In the long run this "robbing Peter to pay Paul" will destroy risk capital and the "living power" of pension funds. Furthermore, it will increase demands for government regulation of business enterprises and personal habits. The continued babying of "labor" elements which assume that more and more union members should work less and less for ever-increasing pay will be disastrous to labor itself.

Self-styled "liberals" who promote such programs really are Marxian "collectivists," at heart. They hold that the state is our master, not our servant. We can hope that Eisenhower, Taft, et al will root them out of the entrenched bureaucracy which has pre-meditated and "implemented" this backwards theory.

In a true industrial democracy ("liberally" defined) ballots are cast every day by consumers. They express their choices in a competitive market. Hence, all enterprises should be privately owned and managed if the consumer is to get a fair shake of the dice.

"Down in Washington," Mr. Wilson declares, "I've watched our creeping paralysis of socialism at work. . . . We have to launch a second era of trust-busting and we need a bigger stick than even Teddy Roosevelt could swing. If the concentration of power by business was bad for our country—and it was—then the concentration of power by government is equally bad. And it is. So, if Americans still believe in our system, let's start practicing that belief."

"Our national debt today is approaching \$270 billion. Suppose we cut that by about 10%. . . . This saving is not the main purpose, though the sum involved is considerable."

Mr. Wilson proposes to let all Americans buy shares in America of their own free will. Let them become stockholders "in the true sense" instead of forcing them, as taxpayers, to finance undertakings beyond their choice and control.

Public power and water projects—and all other Government business enterprises—should be sold to the people who own government bonds. Such mortgages could be exchanged for shares of stock in new companies which would take over plants now owned by the government.

C. E. Wilson's proposal to sell to holders of government bonds all productive enterprises owned by the U. S. Government has six great things in its favor. It will:

1. Reduce the national debt by 10%—or about \$27 billion.
2. Reduce interest on our government debt by around three quarters of a billion dollars a year.
3. Produce a tremendous annual tax yield from exempt properties which now require state or local taxes to support them.
4. Give more people an actual share in U. S. production, and added security from less-jeopardized income.
5. Break the trend toward socialistic "public" ownership.
6. Slow up the drive of axe-to-grind bureaucrats for more and bigger Big Government.

Mr. Wilson has prepared the brightest fiscal idea of our queasy and uneasy Age.

We recommend it to incoming President Eisenhower.



And Music Too

Waco, Tex. Hospital Annex Installs Comfort Cooling In Operating Rooms, Other Areas

WACO, Texas—Two air conditioning systems totaling 90 tons provide comfort cooling for operating rooms and other areas on two floors of the five-story annex of Providence hospital here.

In addition to operating rooms, the system also cools delivery and consultation rooms, X-ray laboratory, nurseries, pre-natal and obstetrical wards, etc., on the fourth and fifth floors of the 125-bed annex.

All refrigeration units, fan stations, and heating plenums are located in a penthouse atop the fifth floor. The Carrier-installed air conditioning systems include two 25-ton reciprocal compressors serving the fifth floor and two 20-ton units serving the fourth floor.

In conjunction with these is a low-pressure steam boiler and air handling system which provides heating for the whole hospital.

One hundred per cent outside air is delivered into the two operating rooms, located side by side midway along the north face of the building. Booster fan stations in the ductwork supplying the surgeries increase the c.f.m. output to 3,500.

Before entering these rooms, all air passes through an electrostatic precipitator which removes dust particles and foreign matter. An exhaust system keeps a maximum

amount of cool air passing through the room.

Temperature is maintained at 78° F. This constant temperature, plus the fact that the air is clean and fresh, is credited with making patients as comfortable as possible during operations.

Chilled water from a Carrier shell-and-tube chiller is piped first to the fan stations supplying the operating rooms before moving to other points in the hospital.

The two nurseries are also equipped with precipitators and exhaust units. The amount of fresh air introduced into the remaining cooled portions of the building can be varied by automatic dampers, a separate air intake being used for the over-all system.

Both the operating rooms and the nurseries are tiled from floor to ceiling. On the unusual side, the former are trimmed in brilliant colors, and wired music is piped into both through four speakers to soothe patients who undergo operations under local anesthetics.

The air conditioning plant was installed by Kiefer Plumbing Co. of Dallas.

Earle Schlitt Joins Trane's Air Conditioning Sales Dept.

LA CROSSE, Wis.—Earle H. Schlitt, formerly a project engineer for Wolff & Munier, contractors, New York City, has joined the air conditioning sales department of the Trane Co. here.

He will specialize on the "Uni-Trane" and "Custom-Air" systems for multiroom structures.

Schlitt received his mechanical engineering degree from Brooklyn Polytechnic Institute, and held engineering posts with Gibbs & Cox, marine architects, and Armo Cooling & Ventilating Co., both of New York City.

The company announced that Gerald Stecker has been appointed chief accountant. Stecker previously was associated with Arthur Andersen & Co., certified public accountants.

Fla. Theater Air Cooled

ST. PETERSBURG, Fla.—Air conditioning equipment has been installed at the Gulf Beach Theater, St. Petersburg Beach, Owner Carl Van Doren reported.

Wagner Electric Names Smith, Garrett, Cheney

ST. LOUIS—Wagner Electric Corp. recently announced a number of appointments.

J. S. Smith has been appointed director of purchases and production planning, with responsibility for purchasing policy, trade relations, and the coordination of production planning.

H. S. Garrett is now purchasing agent, with full responsibility for the administration of purchasing activities. Assistant purchasing agents are J. V. Christman, M. W. Cox, and E. B. Shanklin.

Fred Cheney has been appointed manager of inventory requirements. He will develop, with sales information, plans for forecasting inventory requirements, budgets, and methods of using such forecasts for all coordinated departments.

System In Hotel Will Compensate for Sun's Angle and Intensity

LOS ANGELES—Control of the air conditioning system in the new Statler hotel here will compensate for the angle and intensity of the sun's rays as well as the conventional indoor and outdoor temperatures, according to Gavin Younkin, Pacific coast manager for Minneapolis-Honeywell Regulator Co.

The new M-H control development, which is called "solar compensation," is being applied for this first time to the new 1,275-room hotel, part of a \$25,000,000 development project.

Heart of the system consists of eight electronic devices or compensators similar in appearance to glass doll houses, Younkin explained. These are located in strategic spots on the hotel roof 13 stories up to cover all conceivable sun angles.

These shelters, which measure 8 by 12 by 18 in., have aluminum roofs to reflect the sun, inside walls of black pumice-like material to retain the heat, and a room-angle glass to receive the sun.

Sun rays' penetration is measured by an electronic thermometer in each house while the temperature in the shade is measured by another electronic thermometer outside. The outside thermometer anticipates the effect that air temperature changes will have on room comfort.

The higher the outside shade temperature and the more direct the sun's penetration in the rooms, the more refrigeration will be demanded by the compensators, it is explained. Conversely, when the shade temperature drops too low and the sun sets, or goes behind a cloud, the compensators will call for warm air.

Presumably, the compensators and system will be zoned.

All signals, whether for heating or cooling, will control the operation of the Carrier "Conduit Weathermaster" system supplying the guest rooms and public areas of the hotel.

Hurry! Hurry! Hurry!

PAULSON ENGINEERING'S SALES, RENTAL DISTRIBUTORSHIPS FOR AIR-CONDITIONING DEALERS ARE GOING AT A FAST CLIP

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For a limited time—Paulson Engineering Co., Inc., operators of the successful PAULSON RENTAL SYSTEM is setting up nationwide distributorships on exclusive licensee franchises with alert, qualified air conditioning dealers.

Act Now—To Take Advantage of these 3 Great Benefits of the Paulson Rental Plan!



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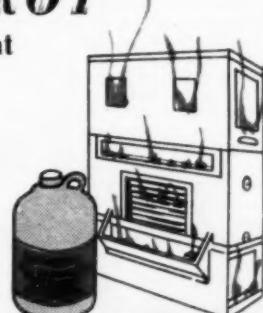
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Westinghouse Conducts Air Conditioning School for Distributors

PITTSBURGH—As a sales aid for distributors of its products, the Westinghouse Air Conditioning Div. has been conducting an application engineering school in 10 strategic locations.

Representatives of all the division's distributors in the meeting areas will be invited to attend. The school has yet to visit New York, Chicago, Cleveland, Philadelphia, Atlanta, and Tampa; it has already been held in San Francisco, Los Angeles, and Dallas.

Conducted by a headquarters team, the three-day course has been tailored to the needs of the distributors. Subject matter covers every facet of air conditioning from system design to equipment selection.

As subjects are taken up, specially prepared chapters are handed the students so they can refer again to the points being covered. The accumulated chapters form the basis of an application manual on Westinghouse air conditioning.

Since the course is intensive, the air conditioning story is being told with the help of a great many teaching aids, such as blow-up charts, films, slides, and strip films.

OPS Rules That Retailers Can't Switch CPR 7, SR 2 Charts to CPR 7

WASHINGTON D. C. Retailers cannot substitute price charts prepared under SR 2 or CPR 7 for charts prepared and filed under CPR 7, according to the Office of Price Stabilization.

This was made clear in Interpretation 1, RR 2, CPR 7, and Interpretation 6, CPR 7. The interpretations are identical.

A seller will give the option on Feb. 27, 1951, of preparing and filing price charts under SR 2 or CPR 7 "rather than under CPR 7," the agency pointed out.

Under CPR 7, section 22, amendments to price charts prepared under CPR 7 may be made subsequent to May 30, 1951, the deadline for filing charts only if performed by provisions added to CPR 7 after that date.

Since no provision has been added to CPR 7 which permits charts prepared under CPR 7, RR 2, to be substituted for the charts prepared and filed under CPR 7, a retailer who on or before May 30, 1951, elected to file a chart prepared by the method provided in CPR 7 may, not thereafter revoke such an election by amending his chart.

Dr. Berestneff, Engineer For Carrier Corp., Dies

SYRACUSE, N. Y.—Dr. Alexis A. Berestneff, refrigeration engineer at Carrier Corp. since 1935, died recently after a short illness.

Dr. Berestneff formerly was a consulting engineer in the bureau of heating in Berlin. He came to this country in 1929. At Carrier he was a director of the development specializing in absorption refrigeration machines.

Herbert Named Manager Of GECC's N. Y. Office

NEW YORK CITY—George C. Herbert has been named manager of General Electric Credit Corp.'s New York office, according to D. M. Whiting, New York district manager.

Herbert was formerly assistant to the district manager in New York. He has been with GECC since 1949.

Universal Names Salyer Quality Control Mgr.

LIMA, Ohio—George Salyer, former quality control manager on Crosley, Westinghouse, and other name-brand refrigerator production, has joined Universal Major Elec Appliances, Inc. here in the same capacity, according to Morton L. Clark, president.

Salyer resigned in 1946 from Rex Mfg. Co., Connersville, Ind., now a division of Philco, to become quality control manager of Clyde Porcelain Steel at a time when that company was producing 2,000 Bendix washers a day, along with many other products.

Both Rex and Clyde Porcelain were formerly Trubey Industries.

For the past two years he has been active in the retail field, in charge of a large major appliance store, according to the announcement.

Since no provision has been added to CPR 7 which permits charts prepared under CPR 7, RR 2, to be substituted for the charts prepared and filed under CPR 7, a retailer who on or before May 30, 1951, elected to file a chart prepared by the method provided in CPR 7 may, not thereafter revoke such an election by amending his chart.

Clyde Klappenback Rejoins Coolerator's Service Dept.

DULUTH, Minn.—Clyde Klappenback has returned to the field engineers section of the Coolerator Service department after a two-year tour of duty with the armed forces, it was announced by E. S. Orren, supervisor of field engineers for Coolerator.

Since Klappenback entered the U. S. Army late in 1950, he served most of this time with the 73rd AAA AW BN (SP) in Germany as a first lieutenant.

He received his degree in mechanical engineering from the University of Minnesota in 1948.

Canadian Refrigeration Mfrs. Plan Meeting for Jan. 23-25

TORONTO, Ont., Can.—Something different in the way of a meeting is being planned by the Canadian Refrigeration Manufacturers Association. The annual convention Jan. 23, 24, and 25, 1953, will take on a winter sports atmosphere at the winter resort, Limberlost Lodge, Huntsville. Skiing, skating, and sleigh rides have been planned for the guests. Indoor entertainment will include square dancing.

A complete program for the ladies will be offered.

2 Engineering Equipment Firms To Be Headed by Arthur F. Tudury

SAN FRANCISCO—Arthur F. Tudury, president of Refrigeration & Power Specialties Co. here, has been named to head two newly-formed East Coast engineering equipment firms.

Firms have recently been opened in Atlanta and Philadelphia to market a new type continuous catalytic water conditioner Distribution throughout 15 eastern and southern states will be directed from the Atlanta Evis-Southeast Co. and from the Philadelphia Evis-Mideast Co. offices. Tudury is president and general manager of both organizations.

The new catalytic device reportedly provides a non-chemical method of coping with boiler, pipe, and cooling system scale. Several thousand units have already been installed in many parts of the country, it is said.

Tudury is a member of the American Society of Refrigerating Engineers and has been active in refrigeration and air conditioning engineering, on the West Coast, since 1919. The Evis equipment will also be marketed through the Portland, Seattle, Tacoma, and Stockton branches of Refrigerating & Power Specialties.

Evis-Southeast Co. is located at 735 Spring St. N.W., Atlanta, and Evis Mideast Co. at 4 E. Richmond St., Philadelphia 23.

ReDisCo To Open Branch In Oklahoma City Jan. 12

KANSAS CITY, Mo.—Establishment of a new branch of Refrigeration Discount Corp. in Oklahoma City was announced recently by W. P. Irons, Kansas City district supervisor.

A Kelvinator subsidiary, ReDisCo provides financing services for Kelvinator and Leonard appliance dealers throughout the United States. The Oklahoma City office, which will serve most of the state of Oklahoma, will open Jan. 12.

Irons said C. M. Baxley, former assistant branch manager for ReDisCo at Memphis, Tenn., will manage the new branch.

Outdoor Signs Available To Universal Outlets

LIMA, Ohio—Universal Major Elec Appliances, Inc. here has made available to all its franchised distributors and dealers two newly designed outdoor point-of-purchase display signs, according to Morton L. Clark, president.

The signs are obtainable by dealers at nominal cost through distributors, who may charge the balance against cooperative advertising funds.

The larger sign, 26 ft. high with an arrow from top to bottom in traveling lights, features the name "Universal" vertically in large neon letters and is illuminated in red and green neon. It was designed for Universal Appliance Centers, distributors' warehouses, or large dealers.

The "U for Universal" slogan is the feature of the smaller hanging sign, double faced in plastic and measuring 6 ft. 3 in. high by 30 in. wide with a "U" 4 in. high.

Yellow on a background of dark blue is the color scheme of the sign, which is illuminated from the interior with incandescent bulbs.

There's always one that's better...and in controls it's Ranco!



Ranco controls cut a fancy sales figure in the refrigeration industry—more Ranco controls are in use than any other kind! Why? Because Ranco controls are available for more than 4,000 replacement installations . . . because they mean greater customer satisfaction . . . because servicemen can depend on them to deliver accurate, trouble-free service year after year.

SLANTS on Service

"Slants on Service" is a handy "package" devised by the NEWS to meet the needs of its busy readers who are engaged in the service and contracting business.

4 Conditions Can Cause High Wattage Readings

Four major factors will affect the wattage readings of refrigerators when a volt-wattmeter of the dynamometer type is being used to check the unit. These factors are: voltage, ambient temperature, amount of frost on evaporator, and state of air circulation at the condenser.

If the voltage is low, there will be a lower reading on the wattmeter than normal. Likewise, high voltage will result in higher than normal wattage.

Wattage will vary somewhat with ambient temperature. It will be normal to find higher wattage readings with higher ambient temperatures.

A heavy coating of frost on the evaporator will lower the wattage reading.

Restriction of air flow through a condenser caused by a clogged or dirty condition will boost the wattage reading. If the condenser is cooled by a fan which is not operating or is running at too slow a speed, a high wattage reading will result.

Other conditions will also contribute to unusual wattage readings, but the four outlined above are the most common.

Tape Avoids Damaging Threads

Wrapping several turns of friction tape around the jaws of pliers will prevent any damage to the threads of bolts, pipes, and similar threaded items when the part has to be gripped at the threaded section.



Efficient operation makes a product easier to sell on one hand; builds solid customer satisfaction on the other. Precision engineering—only the best materials—skilled craftsmanship—and almost 25 years experience in commercial and industrial refrigeration—all add up to higher efficiency for every Larkin product. And this means lower operating costs—important to buyer and seller alike.

Manufacturers of the original Cross-Fin Coil—Humi-Temp Units—Evaporative and Air Cooled Condensers—Air Conditioning Units and Coils—Direct Expansion Water Coolers—Steel Vacuum Plate Cells—Heat Exchangers.

WORLD'S OF THE NATION'S FOOD SUPPLY

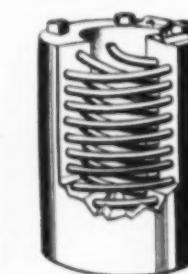
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GENERAL PLANT & OFFICES
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Refrigerant and liquid in separate tubes cast within an aluminum block mean a sanitary, trouble-free cooler.

For coolant, resistance welding and mold cooling . . . plating, anodizing and quenching baths. Has numerous water cooling applications: circulating systems, photographic units, bottling plants, dairies, paper mills, bakeries, etc.

HEAT-X heavy-duty liquid coolers are equipped with TX valve and temperature controller. Merely make connections to condensing unit and water supply and unit is ready to operate.

Request free descriptive bulletin.



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BREWSTER • NEW YORK

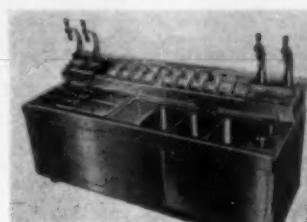
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WORLD'S LARGEST MANUFACTURERS OF REFRIGERATION CONTROLS

What's New

When requesting further information on new products, please use "Information Center" form.

New Features Mark Dunhill 7-Ft. Bobtail



KEY NO. B-1241

BROOKLYN, N. Y.—A completely redesigned bobtail, 7 ft. long and "equipped with many new features for stepped-up efficiency," is the product of Dunhill Soda Fountain Corp. here.

The body is constructed of 16-gauge, zinc-coated steel with all sides and bottom heavily reinforced with steel structural members. Front fac-

Complete interior and exterior back, ends, and bottom panels are sprayed with a thick coating of synthetic aluminum.

All joints in its construction are electric welded to assure watertight seals. Corners are rounded to simplify cleaning. Bottle storage and syrup compartments are individually refrigerated with dry, direct expansion systems with coils completely concealed behind lining. Temperatures are controlled by suction pressure regulating valves.

The unit is supplied complete with modern appointments. Dimensions are 31 in. deep, 40½ in. high. Working height is 32 in.

Dickson Thermometers Record -200° F. Temps.

KEY NO. B-1242

CHICAGO—Two models of distant reading dial and recording thermometers for temperatures as low as -200° F. have been announced by the Dickson Co. here.

Model NR is a Sub-Zero Fahrenheit



The mobile bar has been expressly designed for hotel, banquet, and other group type service.

"It can be wheeled into the service area and put into use in a matter of minutes simply by plugging into any 110-volt a.c., 60-cycle circuit outlet," the company said.

"Drain facilities are provided by means of an easily accessible, removable drain pan that seldom requires emptying more than once during a normal serving period.

"The Mobile Club Bar features the same perfect pressure balance and cooling from keg to faucet tip that is found in all Beverage Air draft systems."

heat recording thermometer providing a continuous time-temperature record on a 12-in chart driven by a synchronous electric clock movement.

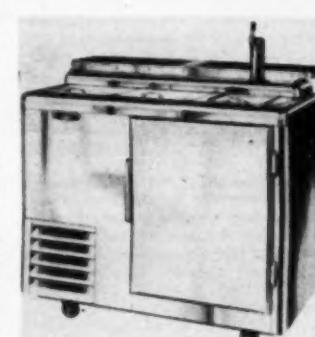
Spring wound clocks are available on special order. The case is made of aluminum with hammerhead finish in dark gray. The mechanism is fully protected against dust and moisture by tight fitting rubber gaskets.

The model NR weighs 10 lbs. and can be mounted on any vertical surface. It is connected to the cold chamber by an 8-ft. stainless steel armored tube that can be supplied longer if necessary.

The pen is motivated by a spiral Bourdon tube. The bulb is a brass tube ½ in. in diameter and 11 in. long. The bulb is the only part of the instrument that needs to be in the cold chamber.

The companion model PD Sub-Zero dial Fahrenheit indicating thermometer is made in two sizes—6 and 8 in. in diameter. It substitutes a pointer for the pen and a dial for the chart.

Both instruments are available in several scale ranges with lows as cold as -200° F. and highs up to 200° F.



Mobile Club Bar Added To Punxsutawney Line

KEY NO. B-1243

PUNXSUTAWNEY, Pa.—The Punxsutawney Co. announces the addition of a "Mobile Club Bar" to its line of "Beverage-Air" refrigeration equipment.

This new model has stainless steel cabinet surfaces, a Formica-covered bar top, and is equipped with mark-proof rubber-tired casters. Capacity is ½ bbl. of bulk beverage and six cases of 12-oz. bottles.

The mobile bar has been expressly designed for hotel, banquet, and other group type service.

"It can be wheeled into the service area and put into use in a matter of minutes simply by plugging into any 110-volt a.c., 60-cycle circuit outlet," the company said.

"Drain facilities are provided by means of an easily accessible, removable drain pan that seldom requires emptying more than once during a normal serving period.

"The Mobile Club Bar features the same perfect pressure balance and cooling from keg to faucet tip that is found in all Beverage Air draft systems."

Pocket Size Tester Has Capacity of 80-600 Volts

KEY NO. B-1244

SYCAMORE, Ill.—Ideal Industries, Inc. here has announced a new "Test-Glo" that can be used for checking electric circuits, spark plugs, motors, fuses, and a variety of electrical equipment. Capacity includes voltages from 80 to 600—a.c. or d.c.

Safety features of this new tester include: 24-in. lead wire between test prods, permitting wide span; 5-in. prod handles for deep probing; safety-rings on prods to prevent fingers contacting tips; 10,000-volt lead wire; high grade resistors between each prod and lead to limit voltage in the lead; neon lamp at front or prod in line-of-sight; and all parts sealed against moisture.

Commercial 'Precipitron' Controls Oil Mist In Air

KEY NO. B-1245

HYDE PARK, Mass.—A redesigned "Precipitron" oil mist control unit for industrial use is being introduced by the Sturtevant Div. of the Westinghouse Electric Corp., reports P. J. Zilles, manager, Precipitron Section.

The unit, an electronic air cleaning device, is designed to clear air of oil mist and smoke generated by high speed machining operations. This redesigned oil mist control unit is available in two sizes with air handling capacities of 600 to 1,200 cu. ft. per minute.

The unit is said to save on space, heating costs; recovers coolant oil; reduces such hazards as slippery floors, fires, impaired illumination, and contaminated atmosphere; helps to lessen building maintenance costs, and insures cleaner working areas.

Completely self contained, the unit may be mounted on a platform near a machine tool or suspended from the ceiling.

REMCO "loss eliminators"



Information Center

For more information on What's New products, current literature and catalogs available, equipment advertised in AIR CONDITIONING & REFRIGERATION NEWS use Key Numbers where designated or specify products advertised and we'll see that you receive this information promptly.

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The Better CASES are DOLE PLATED

Wherever you turn, the better refrigerated display cases and cabinets—whether for dispensing meats, frozen foods, bakery goods, dairy products, candy or other perishables—use DOLE Vacuum Holdover Plates to maintain uniformly low temperatures. Thin and compact, DOLE Vacuum Plates are clean and sanitary. They are available in lengths and widths to suit any cabinet design and with eutectic to provide the required temperature. When you buy a display case, insist that it is DOLE plated.

DOLE makes no cases or cabinets to compete with display case builders. Ask for Catalog A-12, for complete information.

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103 Park Ave., New York 17

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Refrigeration Problems and their solution by Paul Reed

For Service and Installation Engineers



Paul Reed

Air or Water-Cooled Units? (2)

SPACE REQUIREMENTS

Space requirements will frequently be the deciding factor, and it usually favors the water-cooled unit. Water is a cooling medium, is piped to and away from the water-cooled condenser, but air flows over an air-cooled condenser requires a great deal of space for circulation, not only to get the air to and away from the air-cooled condenser, but also to allow the air to cool before it is recirculated through the condenser.

If the air to an air-cooled unit is not to be recirculated, special arrangements must be made to bring in cool, outside air, and conduct the heated air away. This air-cooled window type room cooler is a good example of this method.

Where the condensing unit must be placed in a restricted space, with inadequate space for air circulation, under stairways, in small rooms, or in some types of compact, self-contained fixtures, a water-cooled condenser must be used.

Difficulty may also be encountered in finding a suitable location for a large remote air-cooled condenser or an evaporative condenser, not only because of actual lack of space, but because of the possibility of marring the appearance of the building. This often applies to air conditioning equipment for homes. A notable instance is one of the large office buildings in New York, for which, because of lack of dosing water and/or sewer facilities, it became necessary after construction, to apply cooling towers.

It must not be supposed that even condensing units with water-cooled condensers can be placed in such restricted spaces that no air circulation is available. The motor and com-

pressor give off heat and some means must be provided to absorb it.

This can be done by air circulation, by a separate water coil in the condensing unit compartment, or by water-jacketing the motor and compressor. The amount of heat from the motor and compressor only may sometimes amount to as much as the refrigerating capacity of the condensing unit; so it must definitely be pro-

COLD LOCATIONS

There are other aspects of the temperature of the air in which the condensing unit is to be installed. If the unit must be installed in an unheated room and there is a possibility that the temperature may go below freezing, then the water-cooled unit would not be a wise choice.

On the other hand, such a location would be highly undesirable for an air-cooled unit. Condensation of the refrigerant from the evaporator through the suction line and into the compressor causes troubles (plural)!

Since the suction pressure when the compressor is idle, reflects the temperature at the unit location instead of evaporator and refrigerator temperature, a thermostat must be used, and this may make proper defrosting difficult during summer operation.

Refrigerant in the compressor crankcase results in severe "slugging" and probable (not just possible) damage to the compressor—broken rods, broken valves, etc.; not to mention noisy operation.

Another result of a cold or cool location for the condensing unit is the effect on the expansion valve. The capacity rating of an expansion valve depends upon, among other things, the difference in pressure on the two sides of the valve; that is, upon the difference between the pressure at the outlet of the valve (usually about the same as evaporator or suction pressure), and the pressure at the inlet of the valve (normally, about the same as head pressure).

The greater this difference in pressure, the greater is the amount of refrigerant pushed through the valve and the greater is its capacity. For normal head pressures and suction pressures, this difference is at least 50 or 60 p.s.i. and the valve has its rated capacity.

However, if due to a cold unit location, or if the condensing water is quite cold and the water control valve is set too wide, the head pressure may be down to 50 p.s.i. and the difference across the expansion may be only 25 or 30 p.s.i.

There is probably a pressure drop of 5 p.s.i. through the drier, strainer, and the liquid line itself. If there is a rise of only 20 ft. of the liquid line from the condenser to the expansion valve, there is a pressure drop of another 10 p.s.i. or more ("Freon-12") due to "static head" of the liquid, so the difference in pressure across the expansion valve may be down to 10 or 15 p.s.i., which reduces the capacity of the expansion valve to the point where it cannot feed enough refrigerant to the evaporator to keep it fully active, especially in view of the increased capacity of the compressor due to the low head pressure.

The point is that if the temperature at the condensing location is cool but not down to freezing, a water-cooled unit could be used to advantage, if the water control valve is set to maintain a head pressure of 100 to 125 p.s.i.g., despite the low air temperature around the condensing unit.

Nevertheless, it still would not be a very desirable location for a condensing unit, because of the other objectionable features of difficulty of control of temperatures in the refrigerator and because of compressor slugging. This has been discussed in some detail to show the variety of factors that can affect the choice between an air-cooled and a water-cooled condenser.

NOISE OF OPERATION

This is another factor that may be of such critical importance that it may entirely outweigh all other factors. Here again the water-cooled unit is favored, although not a positive necessity.

In household refrigerators and other small systems requiring only a comparatively small amount of air for an air-cooled condenser, the "static" air-cooled condenser may be used, thus eliminating fan noise. This is a condenser with large surface but without fan, that depends upon natural, gravity circulation of air. Or, a small slow speed fan may be used to circulate the air over the condenser.

If the air-cooled condenser is remotely installed, the air noise factor will be eliminated from the condensing unit location. If the air noise from large remote, air-cooled condenser installed on roofs or similar locations is excessive, the noise can be minimized by the use of large, slow speed fans. The design of the fan blades can also tend to minimize air noise.

To Be Continued

Gas Heating Controls

By Service Information Division,
White-Rodgers Electric Co.

21—Tracing the Operation of Diaphragm Valves

The bleed port capsule assembly consists of a two-port valve and a push rod unit to operate the valve, opening one port and closing the other.

The bleed port assembly is operated by the relay. The relay in turn operates under the command of the switch type controls. The relay arm, when the relay is energized, presses downward on the bleed port push rod. This action opens one bleed port and closes another. When the coil is de-energized, the bleed port valves assume an opposite position due to a spring action in the bleed port capsule.

Gas is supplied to the bleed port valve from passage ways connected with the gas supply line and terminating in the upper section of the valve above the diaphragm.

The bleed port valve also has a gas passage way from the section above the diaphragm to the bleed port outlet. The bleed port outlet is connected by tubing to bleed burner that is set adjacent to, or connected to, the pilot burner.

Through the two-port bleed valve, operated by the relay, gas can be made to flow from the gas supply line to the upper section of the valve, and is prevented from flowing through the bleed port outlet from the area above the diaphragm. The valve is closed.

Reverse the position of the "open" and "closed" ports in the bleed valve capsule and no gas can flow from the supply line but gas can flow from above the diaphragm through the bleed outlet. The valve will open. The gas pressure under the diaphragm is greater than above and the valve is opened by this pressure.

This is known as a "puff-bleed" diaphragm valve. The only gas bleed "off" during the opening of the valve is the small amount contained in the chamber above the diaphragm.

and assistant sales manager before becoming sales manager in 1947.

Robinson started with Acklin in 1930 in the engineering department and was later named chief draftsman in charge of tool and die design. In 1934, he resigned and worked for several Detroit engineering companies. Rejoining Acklin in 1936, he served successively as chief engineer, assistant plant manager, and plant manager.

Wisconsin RSES Convenes In La Crosse April 24-26

MILWAUKEE—April 24, 25, and 26, 1953, are the dates set for the Wisconsin State RSES 8th annual convention, announced Walter Kohlmann, the Wisconsin association president.

The La Crosse chapter will be host to the coming event. Wm. Trapp, vice president of La Crosse Cooler Co. and charter member of the La Crosse RSES, has been selected as general chairman of the convention.

Several committee meetings have been held and a well-rounded educational program spiced with unusual entertainment features has been formulated, it was reported.

Assisting Trapp as sub-committee chairmen are William Schomburg, Emmet Flick, Harold Sargent, Charles Fleider, and Fred Reiman, all of La Crosse, and Frank Wehrer of Sparta.



Acceptance in the field is rapidly changing to "Demand" for these efficient, more economical Cleanable water-cooled Condensers. Owners and service men prefer the "new unit" efficiency that can always be maintained by a simple cleaning process. Brass headers, machined and braised.

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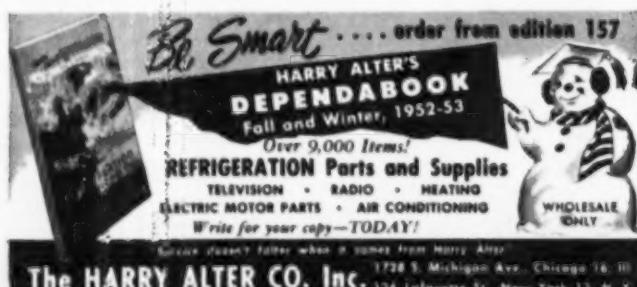
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Air Conditioning Units—1½ to 20 tons
Multi-Packaged Systems—Up to 60 tons
Prop.-R-Temp Heat Pumps—2 to 20 tons
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794 Union Street, Brooklyn 13, N.Y.



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KRAMER TRENTON CO. • Trenton 5, N.J.

Visitors to Miami Educational Conference See Working Models of Refrigeration Products



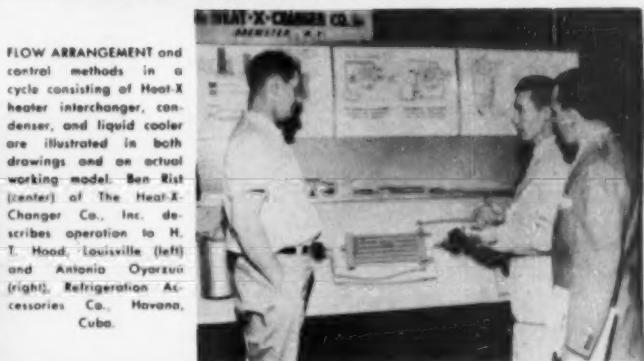
NEAT PANEL DEMONSTRATOR offers easy-to-visualize portrayal of McQuay's hot gas defrosting system for unit coolers used in commercial refrigeration applications. Display setup is being used in meetings and group demonstrations.



ALL IN A NEAT self-contained cabinet, this glass evaporator setup designed by General Controls Co. makes possible a visual presentation on the proper sizing of expansion valves, through operation with an over-sized valve and a properly sized valve. Looking it over here are J. Lawrence Hall of Nashua, N. H., Robert Webster, Claremont, N. H., and George Deyo, General Controls representative in Birmingham, Ala.



EFFECT of pressure drop in both the high side and low side of a refrigeration system on the operation of the system and refrigerant control valves is depicted in an operating setup developed by Detroit Controls which Willis Stafford of the company describes to Miami conference visitors.



FLOW ARRANGEMENT and control methods in a cycle consisting of Heat-X heater interchanger, condenser, and liquid cooler are illustrated in both drawings and on actual working model. Ben Rist (center) of The Heat-X-Changer Co., Inc. describes operation to H. T. Hood, Louisville (left) and Antonio Oyarzun (right), Refrigeration Accessories Co., Havana, Cuba.



FUNCTION of the re-evaporator in hot gas defrosting cycles was graphically portrayed in this display developed by Bush Mfg. Co. Company personnel in this picture are (starting third from left) J. A. Mulcahey, E. M. Flannery, and Joe Parker, southeastern representative.



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EVAPORATORS

fit your needs exactly

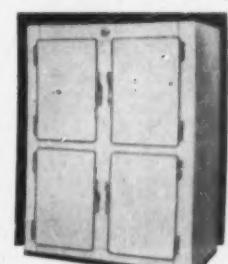
Famous brazed mild steel tube-on-sheet type... galvanized... super finished... prompt service... low cost... all types.

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Specialists in
Manufacturing Evaporators and Condensers
DOWAGIAC, MICHIGAN

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REACH-INS

JUST LOOK—Spacious interiors with off corners coved for easy cleaning... adjustable shelving for more storage space... point grip, zinc grip steel exterior... gleaming white baked enamel inside and out... they're packed full of the extra sales appeal you always get from LA CROSSE. Remote models in 33 cubic ft. and 46 cubic ft. capacities—Electric complete models in 26 cubic ft. and 36 cubic ft. capacities. All models available in Stainless Steel.

LA CROSSE COOLER CO.

Factory and Gen'l Office: 2801 Locy Blvd. S. La Crosse, Wis. Export Office: 80 Broad St., New York City. Cable Address: Eximport.

Do The Refrigeration Coils You Use Have Motor Overload Protectors?

All "RECOLD" Coils Have This Added Protection

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first



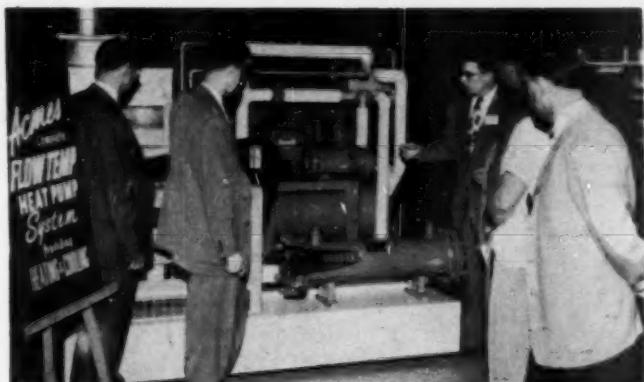
Refrigeration Engineering, Inc.
7750 East Broadway • Los Angeles, Calif.

Genuine Joe says:
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Replace brushes in Wagner Motors with genuine Wagner brushes because Wagner correct grade brushes give maximum performance, commutator and brush life. Identify them by the name WAGNER on the brushes.

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Many 'Demonstrator Units' Shown at Miami Are Available for Local Meetings



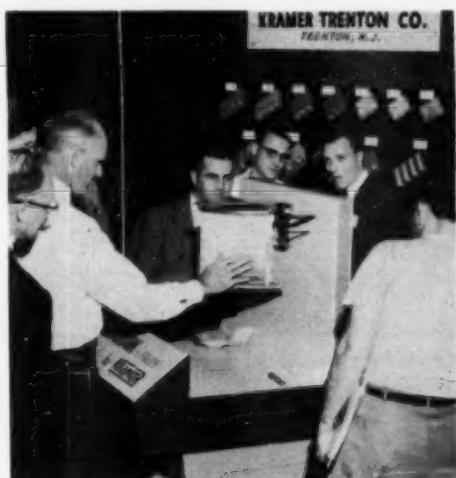
A "FLOW-TEMP" heat-pump type year-round air conditioning system, all neatly done up in one package, including console-type room convector and room controls, drew throngs to the Acme Industries, Inc. exhibit at the Miami Conference.



DEMONSTRATION unit showing the operation of the Larkin Coils' "Frost-O-Trol" automatic hot gas defroster for low temperature system is explained by Mrs. Richard Line of Marinette, Wis., by James Palmer of Larkin. This setup, available for meetings, has colored lights which give a clue to what's happening in the coil during different stages of the defrosting cycle.



THE "INNARDS" of a 7½-hp. accessible hermetic condensing unit, made visible by construction of a glass-bodied cutaway model, are explained by Copeland Refrigeration Corp.'s Rudy Berg (second from left) to J. M. Ober, Detroit refrigeration supplies wholesaler and his wife (left) and daughter, Mrs. James Steve.



"SEE IT AND FEEL IT" is the order of the day with this demonstration model Kramer Trenton "Thermobank" defrosting system for commercial refrigeration applications.



THIS COMPACT and well designated display and demonstration board developed by the Imperial Brass Mfg. Co. available for meetings, shows a wide range of refrigeration parts and accessories, including line and shut-off valves, liquid indicator, drier, pressure gauge, and charging, purging, and testing items. C. H. Benson, Imperial's vice president (right), points out some features to Harry Pearson, company representative in Houston, and Elmer Peterson, Houston supplier wholesaler.



PORTRAYING FACTORS in liquid line pressure drop and suction control problems is this unit which Alco Valve Co. is making available for meetings. Arley Baker and Ben Knox (left) of Alco explain operation for benefit of visitor to Miami conference.

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$5.00 per insertion. Limit 50 words. 10¢ per word over 50.

RATES for all other classifications \$7.50 per insertion. Limit 50 words. 15¢ per word over 50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

POSITIONS WANTED

MAJOR APPLIANCE Service Manager desires position with factory as traveling service man or with distributor as service manager. Three and one half years road experience with factory on service, and fifteen years as service manager for distributors. BOX 4178, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

GOOD OPPORTUNITY for experienced salesmen handling commercial refrigeration, store fixtures, and cafe equipment. Good territory, no local competitor. Must be sober and man of good character. Would sell small interest in business or give working interest. Located in small progressive southern city. For further information, Write EAST ALABAMA EQUIPMENT CO., Opelika, Alabama.

REFRIGERATING ENGINEER experienced in the manufacturing of low temperature cabinets. To take complete charge of manufacturing. Write giving complete details on background and experience or phone Middletown, Connecticut 6-6009. Salary open. JOHNSON MANUFACTURING CORPORATION, Box 1150, Middletown, Conn.

CONDENSER SALESMAN. Must be thoroughly acquainted with this field and have volume accounts. Top salary for real producer. MERCURY MANUFACTURING CORP., 45 Brown St., Buffalo, N. Y.

WANTED: AIR CONDITIONING Sales Engineer, capable of earning \$10,000 up for sales work in Tulsa with the Carrier distributor. Contact RUSSELL L. SIGLER, President, Box 416, Tulsa, Oklahoma, or call Tulsa 3-8129.

REFRIGERATION ENGINEER with experience application in hermetically sealed capillary self contained home freezers, refrigerators and beverage coolers. Life time opportunity with national Philadelphia manufacturer. Write to BOX 4168, Air Conditioning & Refrigeration News.

AIR CONDITIONING ENGINEER for New York City area. Graduate engineer preferred but experience in air conditioning field will be considered in lieu of a degree. Our firm is an active air conditioning contractor and this is a good opportunity for right man. Write giving all details in first letter, BOX 4169, Air Conditioning & Refrigeration News.

HEAD OF household appliance testing laboratory of chief engineering calibre to run New York City appliance testing laboratory. E.E. or M.E. 10 years' experience including supervisory experience. Prefer household appliance experience. Salary \$12,000.00. Send resume, BOX 4174, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

FOR SALE—York Condenser—Max. W. P. 225 lbs., Max. Temp. 400°, Test Pressure 340 lbs. air, Refrigerant Freon 12. For 25 ton Unit. Has never been used as Condenser. Will accept reasonable offer. BARCLEY REALTY CO., 1445 Beach Drive So., St. Petersburg, Fla.

SENSATIONAL BRAND new 1952 Dual-Purpose Freezer Self-Service Frozen Food and Ice Cream Merchandiser with beautiful Formica Counter Top Cabinet 6' 3" long; 15 cu. ft. capacity. Tecumseh sealed unit. List Price \$798.00. Special dealer cost \$399.00. Complete. Write or Call: GENERAL REFRIGERATOR CORP., 2011 First Avenue, New York City, EN-Right 9-0200.

BRAND NEW 1952 frozen food merchandisers original crates. Model FDS18A. 18 cu. ft. thermopane doors; ultra modern superstructure; Kelvinator unit, 5-year warranty. Factory list \$732.50, your cost \$371.00. Order immediately; send for illustrations. MANN REFRIGERATION SUPPLY CO., 440 Lafayette Street, New York 2, N. Y.

REFRIGERATION CONTRACTORS—Can you afford to pass up this opportunity? Available original crates fraction today's cost 4 low temp. evaporator blower freezer McQuay X-3 ZeroPal units complete with Freon expansion valve and automatic defrosting accessories. Contact immediately for information and special prices one or all units. WILLIAM H. McCULLOUGH ENGINEERING COMPANY, 101 E. Ontario St., Chicago 11, Ill. Su. 7-1642.

FOR SALE—Air Conditioning Unit 1 ½ Ton, 14 Cylinder, 14f-14H Double End Chrysler Airtemp Compressor with 75 HP 220/440 Volt, 3 Phase, 60 Cycle A.C. Century Motor, Water Cooled Condenser and all controls except Motor Starter. Also 4-15 Ton Aerofin Cooling Coils with Sporlan Expansion Valves. Equipment has been used, but is in excellent condition. NATIONAL TWIST DRILL & TOOL CO., Rochester, Michigan.

REFRIGERATORS, SACRIFICE. Late models. Norge, Kelvinator, Sealed units. Servel gas. Used, running, and freezing. In fact all makes. Subject to prior sale. A good place to buy. O'REILLY'S REFRIGERATOR CORP., 44 Third Ave., New York 2, N. Y.

ATTENTION SERVICEMEN—Send for our new catalog—on controls, valves, relays, brass fittings, V-belts—hermetic and open type units. All new merchandise at great savings up to 50%; sold on money back guarantee. WALTER W. STARR REFRIGERATION, 2333 Lincoln Ave., Chicago 13, Illinois.

MISCELLANEOUS

NORGE SEALED units remanufactured or exchanged. Immediate delivery from stock. 2 year warranty. Freon refrigerant. Write for prices and shipping instructions. Genuine Norge terminals for Norge sealed units. Sets of three, \$1.15 plus postage. MODERN REFRIGERATION CO., Inc., 12641 E. McNichols Road, Detroit 5, Mich.



OPERATING SETUP developed by Ranco Inc. to show the action of fully automatic and semi-automatic defrost controls is made with "block" tubing, to show up the frost better. Demonstrator is self-contained (complete with its own condensing unit). E. V. Dunbar (center), Atlanta representative for Ranco, shows it off to Joe Miligan (left), Capital Refrigeration Supply Co., Tallahassee, Fla., and L. W. Rickards, W. Palm Beach, Fla.



THINGS YOU SHOULD KNOW About the Use of "Freon-22" is the theme of this Kinetic Chemicals display, which will be used in discussions of the proper use of this particular refrigerant in meetings in the field. Charles Wirth (left, standing) of Kinetic describes how various parts of a system are designed for use with the refrigerant, while R. L. Williams (left, seated) talks things over with E. D. Hollingsworth of Lakewood, Ohio.

HEAD OF household appliance testing laboratory of chief engineering calibre to run New York City appliance testing laboratory. E.E. or M.E. 10 years' experience including supervisory experience. Prefer household appliance experience. Salary \$12,000.00. Send resume, BOX 4174, Air Conditioning & Refrigeration News.

Text of Model Refrigeration Code--

(Concluded from Page 1, Column 5)
stalled in public or private structures whether installed prior or subsequent to the adoption of this code.

SECTION 2. Standard Safety Code

All installations of refrigeration equipment shall be reasonably safe to persons and property and in conformity with the provisions of this code.

Conformity of installations of mechanical refrigeration equipment with the American Standard Safety Code for Mechanical Refrigeration, ASA-B9.1, shall be prima-facie evidence that such installations are reasonably safe to persons and property.

The Refrigeration Inspector may authorize installations of a special nature, that he determines will be reasonably safe to persons and property.

SECTION 3. Definitions and Classifications

a) In application and interpretation of this Chapter, the classifications of refrigerants and the definitions included in ASA-B9 shall apply.

b) The following additional definitions shall also apply:

1. An "alteration" of a refrigerating system" shall be any change involving an extension or addition to the system; a change in type of refrigerant; a change in the arrangement, type or purpose of the original installation; a change in the size of the equipment utilized; relocation of a compressor, generator, condenser, condensing unit, or evaporator.

2. "Repair" of refrigerating system" is a replacement or renewal of any part of an existing system, including replacement of an existing compressor, motor, condenser, generator, evaporator, or condensing unit, with material or part of like type, size, and capacity for the purpose of its maintenance.

SECTION 4. Permits

a) A permit shall be required for every new installation or alteration of a refrigerating system containing a Group 3 refrigerant or containing more than 5 lbs. of a Group 3 refrigerant.

b) A permit shall be required for every new installation or alteration of a refrigerating system containing more than 30 lbs. of a Group 1 refrigerant.

c) No permit for a refrigerating system containing a Group 3 refrigerant shall be issued if the system shall be installed except with the specific approval of the Refrigeration Inspector given upon submission of acceptable evidence that no public hazard will be created thereby.

d) No permit shall be required for repair of a refrigerating system.

e) Where a permit is not required by this code, such permission shall apply only to the requirement for a permit, and all installations, alterations, or repairs, whether made with or without a permit, shall be made in conformity with this code.

f) Whenever the proposed installation is of such extent that it cannot be adequately described on the application for the permit, the application shall be accompanied by such drawings or descriptive data as are required to verify compliance with the provisions of this code.

SECTION 5. Permits to be Issued Only to Registrants

Permits required under this code shall be issued only to a corporation, firm, or person holding a valid certificate of registration in accordance with Section 11 of this code.

Quantity of Refrigerant
in Refrigerating Systems
Up to 5 pounds
Over 5 pounds, up to 20 pounds
Over 20 pounds, up to 100 pounds
Over 100 pounds

SECTION 6. Refrigeration Permit Fees New Installations or Alterations

SECTION 7. Inspection

Immediately upon the completion of any installation or alteration of refrigeration equipment which has been made under a permit, it shall be the duty of the person, firm, or corporation making the installation to send notice of this completion to the Refrigeration Inspector, in writing.

When any refrigeration equipment is to be hidden from view by the permanent placement of parts of the building, the person, firm, or corporation installing the equipment shall notify the Refrigeration Inspector and such equipment shall not be concealed for 48 hours, exclusive of Saturdays, Sundays, and holidays, or unless inspected sooner by the Refrigeration Inspector.

SECTION 8. Registration of Refrigeration Installers and Service Firms

No corporation, firm, or person shall engage in the business of installing, altering, and repairing mechanical refrigeration systems unless such corporation, firm, or person holds a valid certificate of registration as provided in Section 11, permitting the corporation, firm, or person to engage in such business. Revocation or suspension of the certificate of registration of such corporation, firm, or person shall revoke or suspend, respectively, the right of such corporation, firm, or person to engage in the business authorized by such certificate.

SECTION 9. Age and Character of Registration Holders

a) No applicant shall be issued a certificate of registration under the provisions of this code, unless such applicant shall be:

1—Not less than 21 years of age;

2—Able to read and write the English language;

3—Of good moral character;

4—In considering the moral character of an applicant, the authority passing upon application may determine that an applicant with a record of repeated violations of the Building Code of the City of or of other laws or ordinances regulating building construction in the City of or of dishonest practices or malpractice in the conduct of a business, trade, or profession, is of poor moral character, and that it is in the public interest that such applicant shall not hold a certificate of registration.

b) When an applicant for registration is a firm or corporation, each responsible member of such firm or corporation, listed as such in the application for registration, shall meet the qualifications for registration under the provisions of this Section.

SECTION 10. Applications for Registration Certificates

a) All applications for certificates of registration shall be in the form prescribed by the Refrigeration Board.

b) Applications for certificates of registration shall be sworn to by the applicant before a notary public.

c) Every application for registration shall state the name of the person, firm, or corporation applying for registration and the name and address of the place of business or places of business of the applicant. If the applicant is a firm, co-partnership, corporation, association, or any combination thereof, the application shall contain the names and addresses of all members or officers, and such other

information as the application may require, together with a certified copy of the corporation minutes or other certified evidence that the application has been duly authorized.

SECTION 11. Issuance of Registration Certificates

Upon receipt of the application, in accordance with Section 10, the Refrigeration Inspector shall determine whether the applicant meets the requirements of Section 9, and upon making such a finding, shall submit a report, with his recommendation, to the Refrigeration Board. The Board shall issue a registration certificate permitting the corporation, firm, or person to engage in the business of installing, altering, and repairing mechanical refrigeration systems in the City of

The fee for the initial certificate of registration shall be \$10.00, and is to be submitted with the application. No fees shall be refunded whether or not the certificate is issued. The annual renewal fee for such certificates shall be \$5.00.

SECTION 12. Revocation or Suspension of Certificates of Registration

The Refrigeration Board may revoke or suspend any certificate of registration for any of the following reasons:

a) Misrepresentation of a material fact in obtaining such certificate of registration or the renewal thereof.

b) Use of a certificate of registration in obtaining a permit for another.

c) Failure to secure the permits, inspections, and approvals required by the code.

d) Workmanship or work not in conformity with the provisions of this code or not in conformity with the permit issued thereto.

e) Repeated violations of this code, or failure or refusal to promptly correct an installation or part thereof made in an incompetent or improper manner or in violation of any provision of this code.

f) Conviction of a felony involving the moral character of the registrant, provided such revocation or suspension is deemed necessary in the public interest.

It shall be the duty of the Refrigeration Inspector to report such violations to the Refrigeration Board.

When a certificate of registration has been suspended three times, any subsequent action because of any of the rea-

sons listed under this section shall include revocation of such certificates.

No certificate shall be revoked until a public hearing has been held by the Refrigeration Board, at which hearing the registrant may appear in person or be represented by counsel.

A certificate of registration may be suspended for a prescribed period, not to exceed six months, and the notice of suspension may require the corporation, firm, or person, whose registration is suspended, to correct work improperly installed or to correct any other conditions because of which such registration was suspended before such registration is reinstated.

SECTION 13. Registration Certificate Holders' Installation Authorization

A corporation, firm, or person holding a valid certificate of registration, as provided in Section 11 of this code, is hereby authorized to install wiring materials, electrical equipment, including motors and controls, necessary in installing, altering, or repairing a mechanical refrigeration system. Such electrical work shall be done in accordance with the installation safety requirements of the Electrical Code of the City of

A holder of a valid certificate of registration is further authorized to make the necessary water connections and to install indirect wastes in installing, altering, or repairing mechanical refrigeration systems. Such indirect wastes shall discharge over an open sink, floor drain, or other similar open receptacle. Such work shall be installed in accordance with the installation safety requirements of the Plumbing Code of the City of

SECTION 14. Refrigeration

A Refrigeration Board is hereby established to:

1. Issue certificates of registration;
2. Revoke or suspend certificates of registration;
3. Act upon appeals from decisions of the Refrigeration Inspector.

An applicant for a certificate of registration shall be granted, upon request, a hearing before such Refrigeration Board in case an application for a certificate of registration is rejected.

Decisions of the Refrigeration Board shall be final.

The Refrigeration Board shall meet at least once every month; it shall maintain

written records and shall act on applications and appeals promptly.

SECTION 15. Membership of Appeal Board

The Refrigeration Board shall be composed of three members appointed by the Mayor with the consent of the City Council. The Board shall consist of one representative of the Fire Department, one representative of the public, and one representative from the Refrigeration Industry. (Refrigeration Service Engineers Society).

SECTION 16. Unauthorized Use of Sign or Title Prohibited

No person, firm, or corporation shall display any sign or use any title or designation such as "Registered" which would indicate that such person, firm, or corporation has been registered by the City of and no person, firm, or corporation in the City of shall display any sign or use any title or designation, indicating that such person, firm, or corporation is engaged in the business of installing any work which, in the City of may, under the provisions of this code, be installed only by registered installers; unless such person, firm, or corporation has been registered under the applicable provisions of this code, and such certificate of registration has not lapsed or been revoked.

SECTION 17. Penalties

Any person, firm, or corporation who shall violate any of the provisions of this code shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than Dollars (\$....) nor more than Dollars (\$....) for each offense, together with the costs of prosecution, and in default of payment thereof, by imprisonment for not less than (....) days, nor more than days.

SECTION 18. Separation Clause

If any section, sub-section, sentence, clause, or phrase of this code is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this code. The City Council of the City of hereby declares that it would have passed this code and each section, sub-section, sentence, clause, or phrase thereof, irrespective of the fact that any one or more sections, sub-sections, sentences, clauses, or phrases be declared unconstitutional.



KOLD-HOLD's efficient line gives you more for your money

There is a difference in the performance of Kold-Hold Refrigeration Plates that shows up in reduced operating costs. The difference is found in their greater efficiency . . . their ability to pull down larger loads, faster . . . using less power . . . at a lower cost to you.

This efficiency is readily apparent in "Hold-Over" Plates that maintain dependable, low temperatures in truck bodies for as little as 10 cents a day. Operated off the existing plant cooling system or by a condensing unit mounted on the truck, they hold predetermined temperatures throughout

the longest day's hauls and reduce the cost of marketing perishable foods.

This efficiency is readily apparent in "Hold-Over" Plates for quick freezing, chilling and holding. These plates have the equivalent of 100% prime surface because the refrigerant flows in a continuous pass formed in the plate itself. There is no internal tubing or piping. This exclusive "Serpentine" design in individual Plates, Plate Stands and Plate Banks assures you more efficient refrigeration . . . less trouble . . . lower costs! Send for full details today!

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